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Teachers College
RECORD

April 1937

Some Comments on Certain Newer Practices in the Elementary School

By LOIS COFFEY MOSSMAN

ASSOCIATE PROFESSOR OF EDUCATION, TEACHERS COLLEGE

IN THE last eight years many have felt that conditions have been unfavorable for much progress in the work of the elementary school. One of the first evidences of the financial difficulty recently experienced was the discontinuance of the general supervisor and of many of the special supervisors. Then salaries of teachers were rather generally cut, often deeply cut. Funds for materials and supplies were reduced. Investment in library books and reading materials all but ceased. Financial insecurity made many teachers continue working who normally would and should have been retired, thus preventing the incoming of enough new life into the teaching personnel to keep the work vital and dynamic. In some places principals were given teaching responsibilities, superintendents were given the added work of a principalship, and teachers were required to care for and guide many more children than was formerly considered good.

Facts such as these almost make one conclude that the past eight years have brought nothing but loss to the elementary schools. Have there been no developments that give promise of bringing about better ways of teaching children? Have any new practices been attempted that offer better things for the children? Have any proposals come out of the large amount of study of the learning process which has been going on, proposals which call for different practices in the

conduct of school work? Does what has been learned about the growth of children call for different procedures in dealing with them?

One of the recent points of emphasis coming from some of those who are studying human behavior may be found in the statement of the way learning takes place. They tell us that learning comes normally in the course of meeting situations. They see it as a product of acting on thinking. To the extent that one thinks through the situation and acts on his own conclusions, his learning is significant for him. If one would meet a situation well, he should (1) face the situation, (2) seek to take account of all the factors he can find significant, (3) weigh these factors in the light of the values he holds and the goals he is seeking, (4) formulate and decide what to do, (5) respect his decision as coming out of his own best thinking, (6) act upon it, and (7) accept responsibility for the consequences of what he has done. The learning is the resultant way of acting in such a situation which he thus formulates and makes his own by carrying the formulation into action and so makes it his way of behaving in such circumstances. All learning consists of these phases more or less well done. Teaching consists of so guiding the learner that he learns thus to act on thinking.

This point of view places great emphasis upon goal setting, goal seeking, acting on thinking, and respect for the values the learner holds. It means consideration of the learner as a person with values which are important to him and which he must use. It sees him as always already in a situation which he must meet. It sees him as one who detects unsatisfactory conditions in his surroundings, as being sensitive to those relationships of his environment with himself that are not as he would have them, and therefore as prone to put forth effort to adjust the unsatisfactory state of affairs. It thus sees his environment as conditioning and influencing what he does, as pressing in upon him, as challenging him and as calling forth his effort.

It becomes imperative then to study individuals as persons striving to be effective in dealing with their environment. In so meeting the situations that confront one, each person tends to become better able to deal with *life in its continuum of situations to be met*, and in so doing he becomes better defined as a personality; if effective in coping with the situations he encounters, a wholesome personality; if chronically ineffective, a maladjusted personality.

This interpretation places much emphasis upon study of each learner in his environing conditions so that we may understand his conduct as the product of his total situations. At the same time this interpretation raises some troublesome questions, and has led some workers in the elementary school to propose ways of working which imply considerable modification of practice. It is the purpose here to consider some of these new suggestions in the light of questions raised by the recent points of emphasis relative to the nature of the learner, the way learning takes place, and the part the environment plays in the learning process.

If one learns through what he does and if he is prone so to do with reference to the challenges which come from the people and things about him, does it not then follow that the class and its school and classroom conditions come to be very significant to the learners? The answer to this question is leading some teachers to place great emphasis upon the importance of developing the class into a group which becomes engaged in a program of wholesome living together in relation to the larger school life. This implies development of group consciousness, a sense of belongingness in which the members of the class come to recognize individual and group strengths and potentialities and set up a way of living together which makes possible the pursuance of individual and group purposes. It implies that purposes will thus become emergent for all concerned in the process of living together and learning to act on thinking.

Such a program of living and learning will of necessity involve extension of horizons, widening and deepening of meanings, and broadening of contacts. It will imply development of meanings beyond surface significance. It will assume that the process of making choices involves consideration of meanings and consequences with reference to values held. It will stress responsible living as consisting of acting on thinking. It will call for a flexibility in the program of work which will make sincere choices possible. It will emphasize the importance of teaching learners how to make choices by giving them opportunity to make a choice in every instance where it is believed that they can handle the situation effectively and so learn.

This point of view gives an understanding of the proposal coming from some that the program of work in any classroom should be based upon the development of wholesome living together in which,

by working as individuals, as groups of varying size, and as a whole class, the learners extend their contacts with an extending environment, develop meanings in order that choices may be based upon intelligent thinking, and accept challenges to develop better relationships with the situations that arise. It sees the program of work as a series of emergent situations to be met and as a continuous process of goal setting and goal seeking.

This concept places much emphasis upon the significance of each member of the class. It recognizes that each learner should be understood in terms of his total living, that guidance involves knowing what the conditions are with which he is finding it necessary to cope. It implies that what he does at a given time should be in terms of what he should be doing next in order that he may effectively make the adjustments in his situation that he must make. This emphasis explains why many teachers are giving up the concept of mass instruction, and why they no longer assume that all the learners in a given group should do the same things.

This point of view implies that the process of living together develops some common needs, leads to sharing of experiences and ideas, and therefore calls forth many enterprises into which the whole group enter. It implies a growing tendency toward employing the processes of sharing, participating, co-operating, discussing, helping, and planning and evaluating together.

Such a program calls for a type of teaching which is the fine art of guidance. Knowing when to step in and when to stand aside calls for understanding what is going on in the process, and seeing the time when it will be helpful to ask such questions as: Have you thought of all the factors that are important to you? Will so deciding bring you what you really want? Have you considered the consequences of the alternative plans of action? Can you carry the plan through? Are you willing and able to meet the consequences and accept responsibility for them?

Such a point of view implies much interaction with phases of the community. Thus we see classes studying the environment, going on excursions, and participating in community enterprises. Such work at times reaches the serious status of rendering a definite service to the community and widening and deepening understanding of factors involved in community living.

The interpretation of the learning process as here discussed is leading some teachers to look at drill in a different way. Since change results from each interaction with a challenge in the environment, does one literally ever repeat? Does drill consist of repeating? Is what we have called repetition and tried to conduct as such really a misinterpretation of the facts? We have here already noted the emphasis upon goal seeking, acting on thinking, and contriving what to do. Drill then, if it is to be effective, ought to be regarded as the effort made by the learner, each time he goes through a performance, to come nearer to doing the thing with the effectiveness he needs in his enterprises. Each effort is the attempt to achieve a phase which he has failed to achieve in previous attempts. This would mean working at the drill task with its relationship to his goal in view. It would mean planning each time how he can best act. It would mean concern in results of each performance.

As schools have previously conducted drill, they have seemed at times to try to eliminate every opportunity for choice. The learners seem to have been prevented from putting the self into the plan of action. Procedures have been dictated even beyond the demands of the techniques themselves. The emphasis here proposed is upon the effort to get the learner to embody in his own conduct this technique which expertness has developed and to do this by studying how he can deal with it in his situation. Thoughtful students of the learning process are not abandoning drill but are trying to give it a more dynamic interpretation.

In conducting the learning process in the way this point of view suggests, one comes to see the problem of planning the work. The prevailing notions that curricula should be prepared without regard for the needs of the learner and that textbooks should be slavishly followed seem to go counter to the idea of learning in and through meeting situations. Is the only alternative to so following prescribed work the opportunistic one? Must the curriculum be made "on the spot"? Some seem to fear that a program built upon making choices in meeting the situations as they arise precludes planning and implies only following whims and matters of the moment. However, some teachers who are working with this question are going on the assumption that learning how to live in a changing world calls for the habit of looking ahead as far as one can see and planning accordingly. They

are striving to build their school program on this basis in order that learners through experience acquire habits of looking ahead, planning, weighing values, and deciding with consequences in view. With the teacher's wider experience her guidance functions here in helping learners to face reality and deal with it on the basis of thinking rather than on the basis of impulse.

In a number of schools one now finds classes where the time schedule is not fixed in advance but is planned by the teacher and children from day to day or from week to week, thus giving experience in budgeting one's time in order to accomplish one's ends. Responsibility to use time well and to be punctual in appointments is important as something to be learned. As we consider the point of view that one's total situation is involved when he makes a decision as to what he does and as these total situations of the various learners come to be known, we begin to see that the requirement that all be at school ready to begin work at nine o'clock may be placing some of the learners in situations that are extremely difficult for them to manage and may therefore develop in them an adverse attitude toward the ideal of promptness because of the unpleasant experience of "tardiness." This line of thinking is causing some teachers to contemplate building a schedule with enough flexibility to make it possible for individuals to come at the time best fitting their conditions, and thus by meeting their obligations with intelligent promptness, to learn to respect promptness because they have found the satisfaction of being effective in this matter. In such schools the making of arrangements for some children to deviate from the conventional time of beginning does not label them as peculiar or favored children.

Similarly, the traditional classroom comes into question. As this point of view of the way learning goes on changes the concept of what the school should be doing, the school building and its furniture and equipment are judged by different criteria. What working surfaces are needed? How can space for carrying on a variety of activities be made available? What sort of equipment should there be if children are to use it and adjust it to their needs? Occasional school rooms now show the results of attempting to answer these questions. To answer them adequately calls for thinking as to the purposes the rooms and furniture are to serve. It still is a question in the minds of

many as to whether we are best enabling children to learn to meet situations and develop ability to be orderly and effective in their efforts when we place them in rooms where the details are so completely thought out and fixed that there is little left for them to do, and there are few opportunities for them to make choices. There may be a learning poverty in wealth of detailed equipment and furniture. Flexibility that permits some planning and choosing seems needed.

When one considers working from this point of view, he can see why some teachers wish for a petty cash fund and why a few schools now provide it. The program of planning and choosing, of dealing with situations that challenge particular learners develops needs for some materials that cannot possibly be foreseen when the annual budget of the school is prepared. Where teachers and children have a small fund to use in meeting emergencies there arise genuine opportunities to weigh values, make choices, and assume responsibility in terms of this money. One is thus led to ask whether the time will come when the public will trust teachers and children with a petty cash fund.

Similarly, some schools are beginning to consider the building of a school or classroom library as an enterprise offering genuine learning possibilities and are studying ways and means of utilizing these. Having a sum of money to spend for library books, the children, the teachers, and in some cases the parents join in the task of selection by examining book lists, reading and discussing books, and finally choosing the list that can be bought with the money available. Such enterprises provide for learning to make choices.

In the matter of records we see the evidence of attention to individuals as persons. In many schools we find this evidenced in the kind of records kept. Emphasis is being placed upon the value of cumulative records. The memoranda are becoming more detailed and personal. In some schools data are being kept that serve to interpret the learner's growth, with special attention to growth of personality.

Along with this development of a more interpretative type of record has emerged a recognition of the need for closer co-operative contact with parents in order that the efforts of parents and teachers may supplement each other. Thus we see some schools which definitely seek to involve parents, where practicable, in the enterprises of the children. The former contribute out of their experiences to

enrichment of the work. They share in school excursions, festal occasions, and at times in work of a constructive nature. This in some instances comes to mean that the presence of parents in the school is a common occurrence, and in no way can be regarded a signal of something unusual.

This seeking of close co-operation usually is developed along with the effort to make reports to parents that are more meaningful than report cards have been. Progress in this direction is indicated by the following successive shifts that have in recent years been made in ways of reporting: The report card containing per cent marks in the various subjects and in deportment was replaced by one using coarser gradation into A's, B's, C's, etc. This in time was supplemented or replaced by lists of traits or qualities to be checked as to improvement. Having tried this, some schools have substituted a personal letter about each child to his parents two, three, or four times a year. In a few cases these letters are being replaced in part by one or two personal conferences with the parent or parents of each child.

We find that the following changes are being made in the modification of school practices from what they have been in the past toward:

1. More attention to having children enter into the planning of the school work and the time schedule.
2. More respect for the values the learner holds.
3. More attention to the sensitiveness and challenges of the learner.
4. More study of each learner as a growing, purposing individual.
5. An emphasis in drill upon the importance of the learner's own purposes in the process of acquiring a skill, or technique, or set of facts.
6. More attention to the learner's total environment as pertinent to school work.
7. More contacts with environment through excursions, through wider reading, through attention to news, and through use of community expertness.
8. More effort to build a program of group living and sharing as founded upon development of group consciousness and a sense of belongingness.

9. More opportunity for learners to share in arrangement and care of their own classrooms.

10. More attention to development of classroom libraries with children participating in selection and care.

11. More attention to the processes of sharing, participating, co-operating, and conferring.

12. Some opportunity for children to make choices involving financial responsibility.

13. Greater flexibility and variability in school work to take care of individual and group needs.

14. Less emphasis upon mass instruction and more provision for flexible grouping.

15. Use of more detailed records such as will give evidence of individual development.

16. The attempt to develop better ways of keeping parents informed as to the progress of their children and to promote co-operative study of the needs and development of the children.

17. A greater respect for the personality of the learner and for the values he holds and the goals he is seeking.

18. The attempt to give the learner as many opportunities to make choices as seem to offer promise of his being able to cope with the situation and act effectively.

It seems to the writer that a study of the past eight years, while revealing much that has been discouraging because of financial limitations, shows not a little progress along very significant lines. A new emphasis has been made in the attempt to interpret learning as being embodied in the process of interacting with the environment, of goal seeking, of making choices, of acting on thinking. A new emphasis has been placed upon the importance of each individual learner as a person. Stress has been laid upon the significance of the environment of the learner. Careful students of the learning process have made application of these interpretations to practices in the classroom.

The Four and Five Year Kindergarten:

The First Two Grades of Horace Mann School

By GRETCHEN O. MURRAY
CHARLOTTE GANO GARRISON
ALICE G. THORN
and EMMA D. SHEEHY

TEACHERS IN THE KINDERGARTEN, HORACE MANN SCHOOL

THE Horace Mann Kindergarten consists of two groups—one for four year old children and one for five year old children.[1] These are not optional or alternative but represent two different grades in the school, both of which precede what is known as the First Grade. People who are not familiar with four and five year old children are often at a loss to understand why we expect those children who enter school at four to spend two years in the Kindergarten while the ones who enter at five spend but one year. "Why," they ask, "should an intelligent child spend two years in the same situation? Why should he waste this time and energy? Why let him mark time? Why let him become bored?" We might with equal justice ask, "Why should an intelligent child be four years old and then five years old? Why not be four and then six?" The point which escapes most people is that the situations in the two groups of Horace Mann Kindergarten are not the same—the physical setups, the guidance, indeed the children themselves, are quite different. As much care is taken to provide for the distinctive characteristics, abilities, limitations, and interests of each of these groups as in planning and providing for the distinctive experiences of the Fifth and Sixth Grades. The Kindergarten groups each have their own essential subject

Editor's Note: This article is one of the series prepared under the joint editorship of Rollo G. Reynolds and Mary Harden. For other articles in the series, see the May, 1935 TEACHERS COLLEGE RECORD, entitled "The Horace Mann School at Work."

[1] The curriculum of the Five Year Kindergarten is described in full in a forthcoming volume now in process of publication by the Bureau of Publications, Teachers College. This book is one of the series being prepared under the joint editorship of Rollo G. Reynolds and Mary Harden.

matter, organization, and provision for development and progression; there is no more duplication in either experiences or outcomes than occurs in any other two grades in the School where there is a normal overlapping of interests and abilities. In each case the children's responses to the materials, activities, and guidance provided vary, but they are quite consistent with their stage of development.

As teachers in the Kindergarten we are especially privileged in at least two respects. First, we have ready access to the findings of recent research in the many phases of child development. Second, we are free, not only to take advantage of research findings, but also to devote time and energy to experimentation of our own. Horace Mann School, although primarily a demonstration school, has always maintained an experimental attitude, and nowhere is this more true than in the Kindergarten. We have never desired to cast off worthwhile practices simply because they are more than two or three years old, but we do stand ready to adopt new ideas and practices which show reasonable promise of working out to the children's advantage.

Although it is true that we do not feel the necessity for meeting the requirements of a higher grade, especially with reference to the acquisition of subject matter, it would be erroneous to assume that our aims are undefined and that our program is haphazard, or that we recognize no compelling needs of our children which must be met if they are to progress happily and effectively through school and through life. Every effort is constantly bent to provide the materials, the activities, and the guidance which not only meet the physical, mental, social, and emotional needs of children of these particular ages, but also insure a background of experiences which cannot fail, in most cases, to stimulate interest and effort along the lines of desirable subject matter content.

Every privilege carries with it corresponding obligations; our very freedom compels us to assume even greater responsibility toward planning our environment with its two organizations and its various procedures and techniques of guidance. This is especially true in view of the type of child with whom we are concerned. The children in the Horace Mann School, because they live in New York City, with its quick tempo and complex society, and because they come mainly from families who by their very intelligence and sensitivity are unusually stimulated by city life, need protection from the influences

of over-acceleration. All children need the protection of calm, ordered life insofar as this is attainable; children living in a large city have special need of such protection, and the younger they are the more they need it. Consequently, the four year old children are in a small, intimate, and easily supervised room, away from the main thoroughfares of the College. Both organization and equipment are kept as simple as possible, and the group is limited to twenty children. The five year old children have a large sunny room in the Teachers College building with equipment and organization suitable to children of this age level.

In pointing out the reason for meeting the needs of these different age levels in separate groups, it may be well to note a few of the outstanding characteristics of each age level. Growth and development proceed so gradually as to be practically imperceptible. Although some children of four approximate most children of five *in some respects*, the reverse is also true, but it is the rare child indeed who is in *every* way different from most other children of his age. Our mentally accelerated children are quite likely to be normal or even retarded in their social or emotional development. For this reason, grouping by chronological age has thus far proved most satisfactory. Even taking into account the great variation in interests, skills, abilities, and degrees of maturity due to individual differences, it is still possible to say that certain things are true of most four year old children and that certain other things are true of most five year old children, in this school situation. This opinion is based on years of observation and experience with hundreds of children of these ages.

Among the typical characteristics we have observed are the following—all of which, of course, are modified by individual differences in children:

1. Five year old children are larger and have better physical and nervous development than four year olds. Their muscular coordination is better and their various skills are greater. It is important to recognize these facts in selecting equipment to be used by both groups at different times, for example, climbing ladders and swings in the playground. Such equipment must be adjustable in size as well as in arrangement, depending upon the uses which it is desirable to stimulate at the different age levels. Consideration of these facts is

also necessary in planning for activities dependent on such materials as wood, cloth, clay, paint, and paper. Five year olds not only need more tools and equipment to express their ideas, but they can control them better and more safely. Four and five year olds are about equally active, and the type of physical activity in which they spontaneously engage is fairly common to both, but there is a difference in the amount of activity as well as in bodily control. Four year olds fatigue much more easily than five year olds, and need more actual rest as well as more frequent change of physical activity. At both age levels equipment and material are provided which stimulate physical activity—for example, climbing apparatus, large blocks and boxes, swings, balls—some of which is used by both groups at different times and with different guidance. The teachers of four year olds must assume much more responsibility, not only for physical safety, but also for limiting the duration of certain types of play, since children of this age have no ability to recognize and protect themselves from fatigue.

Children from both groups have opportunity for rest during the morning on rugs on the floor, but whereas five year olds are beginning to assume some responsibility toward the mechanics of placing their rugs in suitable locations, it is considered adequate and more conducive to rest if four year olds have no responsibility at rest time except to lie down on rugs already placed for them (in locations least likely to be stimulating) and relax quickly. Again four year olds need more protection by adults in the matter of rest.

2. The fact that four year olds fatigue more quickly undoubtedly contributes to the possibility of greater nervous and emotional instability in four than in five year old children. Four year olds are much more easily affected by the behavior of others than are five year olds. Five year olds are thus affected, especially at the beginning of the school year, but by no means as easily or as long as four year olds. Five year old children lose control of themselves less completely; they can pull themselves together much more quickly; and they have much greater resistance to unwise suggestions or unwarranted criticisms by other children than four year olds; their standards of conduct are higher and their self-control is greater. Here, again, teacher control is much more necessary with four than with five year olds in protecting them from conditions too difficult

for them. This is true not only of social but also of material situations, and it is quite as possible for four year old children to suffer from too many materials at once as from too many people at once. In either case over-stimulation and inability to concentrate are almost inevitable.

3. Although four year olds are beginning to emerge from the completely individualistic phase, their stage of social development is very immature as compared with that of five year olds. They often play alone or in groups of two or three, rarely in groups which involve most of the children even passively, and almost never in group play in which every member participates actively. They may not "pull away" or disrupt the organization, but often they contribute merely their presence. They like to play near someone else, but each one likes to "run his own show."

The opinion prevails in some quarters that young children are made social by being thrown into close contact with numbers of other children. Our experience, on the contrary, shows that sound, constructive, desirable social habits are most easily and most economically acquired when we follow the course indicated by the children's developmental needs as shown by their spontaneous responses to social situations. Consequently we make no effort to force them into group experiences for which they are not socially mature enough.

The group organization is built up slowly as it is needed and as the children become able to adopt it for their own. As soon as they are "ready" for the next stage, they take the initiative and a different type of guidance is in order.

A "unit of work" in the commonly accepted sense as a class undertaking in which each individual makes his contribution subordinate to a main theme, would be practically impossible with four year olds. It is possible, though not usual, that each one might make a contribution outwardly somewhat related, but few if any members of the group would be conscious of a main theme.

Five year old children, on the other hand, are more interested in community enterprises—simply, yet quite definitely, organized, sharing duties, materials, and opportunities. They are more willing and able to wait for turns, though this has to be learned. Social organization and group interests should be slowly developed and informally built up. They do not spring full-fledged, even in a five year

old. Five year old children can take group directions, and can attend more actively and for a longer period to group discussions, directions, and experiences. For example, several children working together might build a large toyshop, or a liner, or a house, or a fire station, and retain the building and the play developed within it over a period of days or weeks, so that most of the children in the group would eventually participate somewhat actively. They can adjust to any group more rapidly than the younger children. They can anticipate a climax longer deferred. Their desires can be less immediately fulfilled. In other words, five year old children are socially more mature than four year olds.

4. As one indication of the degree of mental development, the relative length of children's interest spans is always a subject for discussion and debate. In general, the opinion prevails that the younger the child the shorter the interest span. We feel, however, that this statement should be modified with relation to the type of activity in which the child's interest is engaged. A four year old and a five year old (or a typical group of either age) may often play happily, contentedly, and purposefully for an hour, but a difference exists in what they play and how they play it. Four year olds will often be satisfied with loading, transferring, unloading, and piling an endless number of blocks—repeating this process in another location—repeating it again in another—and so on, whereas to five year olds this lack of content would be entirely inadequate. Five year olds will often start with an idea in mind, for example, the building of a freighter; and with more definite plans for carrying it out (add dock, freight, lifeboat), a more elaborate content, and a more highly organized group (crew, stevedores, passengers) involved in the enterprise. Four year olds often start with mere activity with materials and arrive at an idea by accident; five year olds are much more likely to start with an idea already in mind, and deliberately select and adapt materials to express the idea.

Four year old children enjoy much more repetition without variation than five year olds—in types of play, stories, and songs—and younger four year olds enjoy this even more than the older four year olds.

Whatever they may do at home, in school four year old children talk relatively little and ask relatively few questions as compared with

five year olds. As a rule they ask questions less for information than to maintain social contact, and they make little, if any, use of ideas contributed to add to the content of their play. They are satisfied with their own ideas and knowledge, and most of the time are practically immune to suggestions.

Five year olds, on the other hand, are much more likely to see possibilities in and recognize the value of constructive suggestions. They are learning to engage in more discussions and exchange more ideas. They offer advice, and show some tolerance of other people's opinions. The attitude of most four year olds toward the points of view of others is not so much one of active intolerance as of relative unconsciousness that other people have a point of view. Five year olds seem much more inquiring than four year olds, especially in their desire for information which will help them do better the things they want to do.

These illustrations, by no means exhaustive, are typical of the many and varied phases of child nature and growth which are taken into consideration in planning different environments, organizations, and procedures in Horace Mann Kindergarten.

It is interesting to note that although the first considerations are those of meeting the developmental needs of children, the *beginnings* of all the subject matter taught in this School are present even in the Four Year Old Group. We have evidence of the beginning and growth of interest in the activities leading to reading, writing, and arithmetic, music and the arts, science, and the languages. Obviously we do little with many of these interests beyond keeping them alive and nourished until the time arrives when they are ready to be utilized and developed more fully and economically, but there is something about every department of subject matter which is interesting and appropriate to and consistent with the stage of development of even these young children, and that something we try to use wisely and discriminately. It is largely on the basis of these interests, taken in conjunction with the developmental needs of our children, that we consciously plan our materials and equipment, which are significant and valuable only insofar as they enrich experience, suggest new ideas, clarify existing ideas, and otherwise further desirable learnings.

While repetition is desirable and legitimate with young children, it is also necessary that development and progress take place. One of the ways in which we provide for constant checking to insure this is in the type of records we keep. Since we consider our work with the children of greater importance than extensive recording, we keep only those records which are of immediate and unquestioned value to us. The form which these records take is in an almost constant state of revision in order to produce the result which best meets our needs, and at present a personal record for each child is being used from the Four Year Old Group through Second Grade.

Our purpose in keeping records is fivefold:

1. To present as accurate and as meaningful a picture as possible of each child with reference to his physical, mental, social, and emotional reactions to the school situation, as well as to type and degree of interest and achievement in various subject matter aspects.

2. To improve the quality of our thinking and teaching by means of frequent checking and analysis of what we are doing, what the children are learning, and what further needs to be done.

3. To pass on some concrete evidence of each child's school experience to his next teacher, as a means of helping her to a better understanding of what has gone before.

4. To add to the scope and enrich the content of our conferences with student teachers with whom we are working.

5. To have some basis of discussion in a personal conference with each parent, as a substitute for the time-honored custom of sending home a report of "Passed," "Failed," "Average," "Unsatisfactory."

In connection with our reference to student teachers, it may be well to point out the fact that through our affiliation with Teachers College we have a definite program of practice teaching for college students. The whole school is used extensively as a demonstration center for Teachers College, and the Kindergarten has a very close relationship with the College through our intimate connection with the Nursery School-Kindergarten-First Grade Department. While it is impossible ever in Horace Mann School to turn over complete charge of a group of children to practice students, we do recognize the need of and create opportunity for, not mere observation, but as close and as active participation in the work with children as the welfare of the groups will permit.

It is impossible to present a complete picture of Horace Mann Kindergarten without saying something about the parents in the School, a slight reference to whom has already been made in connection with record keeping. One of the outstanding features of the Kindergarten—made necessary by the extreme youth of the children concerned—is the unusually pleasant and profitable variety of parent-teacher relationships. Although some provision for such contacts is essential wherever constructive work with very young children is to take place, it is rarely that one finds human relationships so genuine, so sincere, and so spontaneous as it is our privilege to maintain with these parents. This situation is due in large part, we feel, to the fact that the recognition of the need of co-operating actively on behalf of the children is mutual. The parents come to us for help, but we teachers also go to the parents for help, and we get it. There is nowhere among our teachers the "case study" attitude—we are not collecting material for research—we are not diagnosing and treating "cases." While we endeavor to be scientific, or at least intelligent, our interest in the children and in their parents is human and personal. There is no feeling of the need of a program of "parental education" or "parental guidance" on our part in the sense that we feel obliged to enlighten the uninformed. However, we are constantly asked and urged to make suggestions and give help, and we do make definite plans for a regular, consistent, organized series of planned discussions, both individual and group. Our relationships contribute to our mutual benefit, and grow out of real interest in the children as personalities and a genuine desire to know them and plan together for them in the most sympathetic, consistent, and intelligent way possible.

Reading Readiness in a Progressive School*

By FRANK T. WILSON

INSTRUCTOR, HUNTER COLLEGE

and AGNES BURKE

TEACHER, SECOND GRADE, HORACE MANN SCHOOL, TEACHERS COLLEGE

For the past four years a co-operative study of reading readiness and progress has been under way in the Horace Mann School. Teachers and children of the Four-Year-Old and Five-Year-Old Kindergartens and of Grades One, Two, and Three have contributed.

The program of instruction in this school stresses a functional teaching of reading as a part of a rich, broad total experience. Some results from the investigation of beginning reading suggest certain adaptations in teaching by which able and thoughtfully progressive teachers can provide for more effective and economical learning of the mechanics of reading without shifting the basic emphasis from a varied and rich experience for young children or without violating the ideal of individualized learning. CECILE WHITE FLEMMING

THE study of reading readiness and reading progress in the kindergarten and the primary grades of the Horace Mann School was begun during the school year 1933-1934. A group of twenty-five pupils in the first grade was studied intensively that year, and during the following two years the investigation was extended to five other first grades, to four second grades and two third grades, and to two five year old and two four year old kindergarten groups. The main findings of the first year were corroborated in the other years. This gave support to the belief that, in spite of a small number of cases and the fact that the readiness tests used in the first

* This report presents one phase of a study of reading readiness and reading progress conducted in the primary grades of the Horace Mann School, Teachers College, 1933-1937. The study was carried on under the supervision of Dr. Cecile White Flemming, Director of Individual Development and Guidance, and Dr. Rollo G. Reynolds, Principal. The report was prepared with the assistance of the U. S. Works Progress Administration, New York City, project number 65-97-295, sub-project 25.

year were not repeated, the results of the first year's study were sufficiently reliable to warrant quite detailed analysis.

The three so-called reading readiness tests used the first year of this study were:

Van Wagenen Reading Readiness Tests, made up of subtests called: information, relations, vocabulary, memory span, word discrimination and word learning.

Stone and Grover Classification Test for Beginners in Reading, made up of Part I, in which children indicated among five words one which was the same as a near-by word below a picture giving its meaning, and Part II, in which children indicated whether two adjacent words were the same or different.

Hildreth, Griffith, Orleans Metropolitan Readiness Test for Kindergarten and Grade I, made up of subtests called: copying, vocabulary, sentences, numbers, information, man drawing.

The scores of the pupils in each subtest of these three tests and the total scores of the Stone and the Metropolitan tests were correlated with the scores made by the pupils in the following fourteen reading tests, given during the months and in the manner indicated below:

Gates Primary Reading Tests

Type 1, word recognition, November, given to small groups
Type 1, word recognition, March, given to small groups
Type 2, directions, March, given to small groups
Type 3, paragraph reading, March, given to small groups
Type 1, word recognition, May, given to groups of 12 and 13
Type 2, directions, May, given to groups of 12 and 13
Type 3, paragraph reading, May, given to groups of 12 and 13

Hildreth First Grade Reading Analysis Test, made up of the following subtests: matching phrases, matching words, matching sentences, and matching words and phrases in sentences. Given in April to groups of 12 and 13.

Teacher's November ranking of predicted achievement of pupils in reading by the end of the year.

Teacher's May ranking of achievement in reading at the end of the year.

The ninety-one intercorrelations of these fourteen measures of reading ability averaged .73, which indicated high reliability, especially for children as young as those of the group studied.

The reliability of the coefficients of correlation obtained in the study are indicated in Table 1.

TABLE 1

REPRESENTATIVE P.E.'S OF RHO WHEN N EQUALS 25

Rho	P.E.	Rho	P.E.	Rho	P.E.
.90	.025	.70	.066	.40	.112
.85	.035	.65	.075	.30	.122
.80	.046	.60	.083	.20	.129
.75	.056	.55	.091	.10	.134
		.50	.099		

The correlations between each subtest of the three reading readiness tests and the fourteen measures of reading ability are shown in Table 2. Two other readiness measures are also shown: the Gates Primary Reading Tests, Type 1, word recognition, given in November, and the teacher's November prediction of how well the pupils would learn to read during the year. At the bottom of each column are shown the average and the range of the coefficients for the various tests.

The highest average and the smallest range were for the correlations of the teacher's November ranking with reading, column (19): an average of .75 and a range from .60 to .86. In view of the quite small P.E.'s of *rho*'s of this size, as shown in Table 1, and the number of coefficients used in computing the averages, these correlations seem quite high. The next highest average was for the Gates November test, column (18): .61. The range of coefficients for that test was greater than the range for the teacher's November ranking, being .34 to .79. The Stone total score produced the third highest average, column (9): .58, and a range from .37 to .72. The Metropolitan total score, column (16), gave an average of .49, and a range of .25 to .69.

None of the subtests of the readiness tests produced average correlations of any impressive size. Few of the separate coefficients with the individual reading measures were even moderately high, and many were so low as to indicate little, if any, relationship between the readiness subtests and the reading tests. As far as prediction of ability to learn to read under conditions like those experienced by first grade pupils of the Horace Mann School was concerned, it seems that neither the Van Wagenen, the Stone, nor the Metropolitan reading readiness tests were as good as the Gates word recognition test, or

TABLE

RHO RELATIONSHIPS BETWEEN READING READINESS

Reading Measures	READING READINESS *VAN WAGENEN*					
	Information	Relations	Vocabulary	Memory Span	Word Discrimination	Word Learning
Gates Primary Reading Tests	(1)	(2)	(3)	(4)	(5)	(6)
Type 1, November	.47	.43	.37	.13	.49	.16
Type 1, March	.25	.41	.38	.19	.44	.20
Type 2, March	.38	.23	.16	.26	.40	.14
Type 3, March	.49	.38	.36	.40	.38	.28
Hildreth First Grade						
Matching phrases	.08	−.01	−.02	.18	.17	.05
Matching words	.35	.27	.48	.43	.28	.45
Matching sentences	.36	.07	.19	.21	.32	.44
Matching words and phrases in sentences	.41	.37	.45	.40	.44	.34
Total	.36	.25	.42	.40	.32	.40
Gates Primary Reading Tests						
Type 1, May	.41	.41	.47	.34	.50	.26
Type 2, May	.24	.33	.38	.21	.47	.22
Type 3, May	.34	.33	.39	.33	.46	.29
Teacher's November ranking	.48	.53	.44	.46	.40	.29
Teacher's May ranking	.34	.34	.33	.23	.48	.15
Averages	.35	.31	.34	.30	.40	.26
Ranges	.08–.49	−.01–.53	−.02–.48	.13–.48	.17–.50	.05–.45

the judgment of the teacher after a few weeks' acquaintance with her pupils.

Table 3 shows the separate and the average correlations between the same fourteen reading measures used in Table 2, and certain specific abilities. Seven of the averages in this table were quite high. The highest one was .70 for phonic combinations, column (3). This test required the children to pronounce combinations like *inmo*, *ick*, *er*, etc. Apparently those who could do this best tended very definitely to be the best readers. The range of correlations in this test was relatively small: .49 to .84. The other six high averages shown in Table 3 were all close to .60, and are as follows: column (2), recognizing words heard when seen in rows of words, .60; column (4) giving letter sounds, .61; column (8) writing words, .63; column (9) writing letters, .58; column (11) naming small letters, .59; and column (22) a composite letter test score, .60. The test shown in column (2), although called a word test, was probably really a letter test, for this reason: the process the children used to find the words

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TEST SCORES AND MEASURES OF READING ABILITY

MEASURES	STONE			METROPOLITAN								GATES P. R. TYPE 1	TEACHER RANKING NOV.
	I	II	Total	Similarities	Copying	Vocabulary	Sentences	Numbers	Information	Total	Man Drawing		
	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
	.55	.32	.50	.02	.26	.47	.35	.42	.17	.40	.30	..	.70
	.47	.48	.64	.16	.35	.19	.25	.33	.07	.41	.37	.75	.70
	.44	.32	.48	.23	.33	.44	.13	.38	.21	.48	.39	.60	.85
	.60	.26	.50	.24	.43	.55	.32	.50	.32	.55	.34	.69	.76
	.26	.36	.37	.07	.40	.16	−.07	.21	.14	.25	.05	.34	.62
	.49	.38	.59	.27	.50	.37	.36	.58	.39	.60	.41	.41	.67
	.45	.38	.57	.17	.33	.30	.31	.26	.23	.37	.26	.58	.60
	.44	.54	.65	.32	.55	.30	.21	.52	.34	.59	.51	.58	.81
	.52	.49	.68	.26	.48	.36	.29	.51	.34	.57	.37	.53	.79
	.54	.55	.69	.27	.49	.42	.36	.49	.19	.56	.48	.72	.86
	.51	.56	.72	.20	.38	.35	.18	.31	.23	.44	.30	.79	.76
	.40	.46	.57	.20	.40	.32	.21	.41	.25	.47	.47	.62	.85
	.50	.35	.51	.35	.55	.49	.14	.61	.36	.69	.42	.70	..
	.36	.48	.62	.20	.34	.33	.10	.43	.22	.48	.41	.68	.86
	.47	.42	.58	.21	.41	.36	.22	.43	.25	.49	.36	.61	.73
	.26–.60	.26–.56	.37–.72	.02–.35	.26–.55	.16–.55	−.07–.36	.21–.61	.07–36	.25–.69	.05–.51	.34–.79	.60–.86

heard seemed to be to keep in mind the sounds recognized as those of certain letters and then to find those letters in the words presented to them. There was abundant evidence that it was these letter clues that they used in a variety of ways.

The high relationship between these particular letter abilities and reading measures shown in Table 3 was found in practically every group studied during the following two years. In fact, in certain instances some of the correlations were much higher. For example, during the second year of the study the children of grade two, which included the pupils studied the first year, and which was taught by the same teacher, were found to produce correlations of more than .90 between the test of phonic combinations and some of the reading tests. It also was found that in three kindergarten groups the average correlation between knowledge of small letters and reading ability was .617, and that in a group of 52 five year old kindergarten children the correlation between ability to give letter sounds and reading was .65.

TABLE

RHO RELATIONSHIPS BETWEEN CERTAIN ABILITIES

Reading Measures	Gates Reading: Recognition words seen, VIII–2	Recognition words heard, VIII–3	Phonic combinations, IX, 1–7	Giving letter sounds, IX, 9	Blending sounds heard, X, 1	Recognition letter sounds, X, 2	Giving initial and final sounds, X, 3–4	Writing words, XIII, 1–3	Writing letters, XIII, 3
Gates Primary Reading Tests	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Type 1, November	.27	.45	.65	.61	.40	.47	.41	.63	.33
Type 1, March	.52	.67	.82	.57	.38	.28	.32	.49	.60
Type 2, March	.46	.67	.67	.63	.35	.24	.45	.61	.62
Type 3, March	.42	.52	.68	.59	.39	.29	.45	.56	.57
Hildreth First Grade									
Matching phrases	.23	.32	.60	.46	.14	.26	.21	.45	.48
Matching words	.59	.52	.49	.50	.21	.50	.37	.72	.60
Matching sentences	.21	.44	.63	.56	.32	.33	.07	.60	.41
Matching words and phrases in sentences	.64	.73	.81	.66	.41	.39	.42	.62	.74
Total	.52	.59	.70	.62	.31	.50	.36	.75	.66
Gates Primary Reading Tests									
Type 1, May	.57	.72	.73	.69	.43	.49	.59	.69	.56
Type 2, May	.46	.66	.78	.57	.31	.37	.48	.54	.53
Type 3, May	.69	.77	.72	.67	.35	.40	.48	.68	.70
Teacher's November ranking	.61	.63	.70	.67	.35	.42	.56	.80	.68
Teacher's May ranking	.57	.74	.84	.70	.41	.39	.45	.64	.68
Averages	.48	.60	.70	.61	.34	.38	.40	.63	.58
Ranges	.21– .69	.32– .77	.49– .84	.46– .70	.14– .43	.24– .50	.07– .59	.45– .75	.33– .74

Four letter tests shown in Table 3 did not give high correlations with reading tests. They were the following: column (5), blending sounds heard to make words, .34; column (6), recognizing sounds heard, .38; column (7), giving initial and final sounds, .40; column (10), naming capital letters, .47. Three other tests were basically letter tests, although not so named, and they likewise produced only moderately high average correlations. They were: column (1), recognizing words seen, .48; columns (13) and (14), recognizing pairs of spoken words as the same or different, .20 and .12; and column (21), a total matching test, .46. The reasons these letter tests did not give high correlations with reading tests seem to be that they (*a*) had little to do with reading, as, for example, recognizing capital letters which were little used in the reading tests; (*b*) were of such special abilities as to require specific learnings, such as blending sounds heard to make words, or giving final and initial sounds; (*c*)

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AND MEASURES OF READING ABILITY

DIAGNOSIS TESTS						OTHER MEASURES							
Naming capital letters, IX, 10	Naming small letters, IX, 11	Repeating nonsense syllables, XI, 1	Recognizing words as same or different, XI, 2	XI, 2 plus supplement	Memory span total, XV	Chronological age	Mental age	Intelligence quotient	Grip	Motor coordination	Matching total	Letter total	Teacher's May ranking
(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
.41	.36	.36	.16	.34	.15	.40	.51	.30	−.09	−.22	.26	.30	
.54	.62	.23	−.02	.18	.31	.24	.48	.36	−.14	−.22	.43	.63	
.49	.58	.37	.29	.11	.57	.42	.53	.27	−.04	−.16	.44	.58	
.41	.49	.47	.22	.09	.52	.28	.66	.49	−.08	−.11	.49	.51	
.34	.37	.32	.03	−.16	.35	.39	.11	−.14	.06	−.06	.29	.40	
.33	.63	.40	.35	.19	.63	.20	.54	.39	.11	.06	.50	.57	
.29	.41	.16	.11	−.01	.50	.27	.31	.15	.12	.05	.37	.38	
.68	.81	.38	.22	.22	.54	.17	.58	.47	−.06	−.06	.56	.82	
.45	.66	.37	.29	.15	.62	.24	.48	.31	.02	−.01	.51	.65	
.53	.68	.38	.29	.19	58	.22	.61	.48	−.09	−.22	.57	.65	
.45	.60	.24	.18	.02	.40	.28	.54	.40	−.09	−.08	.49	.58	
.53	.79	.41	.26	.16	.52	.18	.54	.43	−.02	−.08	.45	.74	
.46	.57	.49	.26	.12	.60	.44	.70	.41	.00	−.24	.59	.59	.86
.63	.74	.35	.20	.17	.44	.35	.56	.34	−.04	−.11	.45	.74	
.47	.59	.35	.20	.12	.48	.29	.51	.33	−.02	−.10	.46	.59	
.29–	.36–	.16–	−.02–	−.16–	.15–	.17–	.11–	−.14–	−.14–	−.24–	.26–	.30–	
.63	.81	.49	.35	.34	.63	.44	.70	.48	.11	.06	.59	.82	

or were particularly unreliable, such as recognizing sounds heard and differences between words spoken, in which the sounds and the words were given by the examiner and probably varied considerably from time to time and also may have differed from peculiarities of pronunciations with which the children were familiar in their homes and elsewhere. The total matching test included the Stone test in word matching, the total of which gave the relatively high average correlation of .58 with reading measures, as shown in Table 2, and also the Metropolitan similarities and copying subtests, which produced the low correlations of .21 and .41 respectively, with the reading, as shown in Table 2. These Metropolitan tests included pictures, forms and digits, as well as letters and words.

The correlations of six other tests are shown in Table 3, as follows: column (15), the total memory span tests, averaging, .48; column (16), chronological age, .29; column (17), mental age, .51;

column (18), intelligence quotient, .33; column (19), grip, —.02; and column (20), motor co-ordination, —.10. The last two measures were probably quite unreliable because of the young age of the children. The grip test was made by three trials with a hand dynamometer. The co-ordination measure was a composite of ratings made by the school physician and the teacher. The average of the correlations of mental age and reading, .51, does not seem to be particularly high. The average for the memory span, .48, seems explicable on the grounds that memory span is closely related to mental age, and therefore would follow somewhat closely the relationships shown by mental age.

The significance of the relationships between certain abilities with letters and ability to read was brought out still more convincingly by the separate correlations of some of these letter tests with the teacher's May ranking of the pupils in reading ability achieved during the year. For convenience of study they are listed below in order of size, and may be found in Table 3.

Column		r
3	Giving phonic combinations	.84
22	Total letter score	.74
2	Recognizing words heard (really a letter test)	.74
11	Naming small letters	.74
4	Giving letter sounds	.70
9	Writing letters	.68
8	Writing words	.64
10	Naming capital letters	.63
1	Recognizing words seen (really a letter test)	.57
11	Mental age	.56
21	Matching total score	.45
7	Giving initial and final sounds	.45
15	Memory span	.44
5	Blending sounds	.41
6	Recognizing letter sounds	.39
12	Repeating nonsense syllables	.35
16	Chronological age	.35
18	Intelligence quotient	.34
13	Recognizing words as same or different	.20
14	Recognizing words as same or different	.17
19	Grip	— .04
20	Motor co-ordination	— .11

Every test in the first part of this list, except mental age, involved special letter abilities. Each correlated impressively high with the teacher's judgment of reading ability. The very moderate and low correlations shown in the second part of the list were with tests which were either in part or entirely other than letter abilities, or, as pointed out above, were quite unreliable.

The correlations of the teacher's judgment with the letter tests shown in the first part of the list are in sharp contrast with the correlations of her judgment and the reading readiness subtests, as shown in the last row of coefficients in Table 2. The average of these fifteen correlations of the teacher's judgment of reading ability and the reading readiness subtests was .316. The range was from .10 to .48.

From this study of the correlations shown in Tables 2 and 3, the following facts seem evident for the children of the grade one group studied:

1. Certain abilities with letter forms and sounds were strikingly related to reading progress, namely: naming letters, giving phonic combinations, giving letter sounds, and writing words.

2. These relationships were much closer than any other measured abilities, including mental age and intelligence quotient.

3. Three so-called reading readiness tests gave very little evidence of predictive value as to reading progress in grade one.

4. The teacher's November prediction correlated .86 with her May ranking of the pupil's ability to read, and also gave a higher average correlation with reading ability as later measured by tests than did any other measures used in the study.

Interpretation of these results requires an understanding of the learning experiences which were provided for the children. In a broad sense these experiences were of the informal sort rather than those familiar in the more formal kind of school. No formal drills in reading or letters were provided. Much informal and functional learning, however, took place. Children's felt needs for reading and strongly motivated desires to read were utilized. The needs and desires were on the level of child life, such as reading names, labels, notices, and the like. They were not on an adult's interpretation of what the child's reading interests ought to be, such as reading material in first grade reading books. In the experiences in learning to

read the teacher made frequent use of letter abilities. This was done by calling attention to forms and sounds of letters in connection with reading and writing situations. In this general way letter abilities were made functional in reading situations.

In order to show concretely how these principles were applied in reading situations the following section, contributed by Miss Burke, the teacher of the group studied, is presented. It will be noted in this part that, in its vital but limited place in children's experiences, use of letters as a means of mastering the mechanics of reading, was provided.

HOW READING ACTIVITIES DEVELOPED

1. The environment was planned for children of this age level, including materials for experiences with fine and industrial arts, music materials, science, books, and so forth.

2. The social organization was planned to give opportunity to use this environment, for children to move about and live richly.

This planned environment and this type of social organization are most essential in conducting a reading program.

Reading needs arose because many social needs were solved through the use of symbols.

A. *Reading activities.*

1. Examples of reading activities.
   a. Names on the lockers or on the belongings or on the children themselves (for the benefit of special teachers).
   b. Names on the supply boxes for general use, and the like.
   c. Things to remember, such as, "This is assembly day."
   d. Finding or losing things, such as, "Lost, a necktie clasp; finder give it to Jean."

These are just a few samples of social needs. Some needs arose every day, and at some time in the day everybody's attention for a short time was called to something written on the board. The children began to participate by suggesting needs for recording.

2. What I tried to do through these experiences.
   a. See that each child had a happy, satisfying experience.
   b. Help children to recognize their own and other names by

pointing out characteristic forms, for example, "Henry begins with *H*. Georgiana is a long name."

c. Call attention to likenesses and differences between names, such as Matilda and Margaret—"Both begin with *M*, both have about the same length, but Matilda has a lot of high letters in it."

d. Call attention to the fact that names always begin with capital letters.

e. When writing messages on the board I sometimes stimulated interest by saying, for example, "Now I am writing the word *Gymnasium*, and it is a long word. Say it and see how long it takes to say it. Words that are long to say look long when written."

f. Sometimes I wrote things on the board when the children were out at recess to see if the children would notice them when they came in and try to find out what they said.

3. What I think children gained through these experiences.

a. An interest in learning to read.

b. Pleasure in a satisfying experience.

c. An interest in letter and word symbols and some idea of the use of symbols in our lives.

d. Ability to recognize their own names and names of others.

e. Beginning of useful habits of using cues in the recognition of words, for example, length, configuration, initial letters, etc.

B. *Other activities.*

1. In a very short time, a few days or a week, the children became so interested in having me write things on the board and in reading them that a special time of day was given to this activity. I wrote whatever the children suggested, such as, "John has new shoes." "We had fun at recess." I read what was written and the children began to participate by saying, "I can read about my new shoes," and the like. At first there was no unifying interest in the ideas suggested, but gradually the children began to wish to record some of the experiences taking place in the room. One day it was discovered that there was an interesting story to write about a pumpkin. This is how the story came to be written.

Margaret had brought an enormous pumpkin to school. When the group gathered for the usual board writing and reading, I said, "What shall we write about today?" "Let's write about the pumpkin," said the children.

The pumpkin was brought before the group and the children came up, lifted it, patted it, rolled it, pounded it, and so forth. Their actions were accompanied by spontaneous language. I wrote on the board some of the things I heard the children say. "Margaret's pumpkin." "Big, fat pumpkin." "Roly, poly pumpkin." "Big, orange pumpkin, with a curly green stem." "You are going to be a jack-o'-lantern."

When these were written on the board I read them to the children and they recognized their own remarks and thoroughly enjoyed them, so much so that for the first time they expressed a desire to keep the story on the board so the mothers could read it too. The story was put on a chart and read for several days. I asked such questions as, "Who knows where it says, 'Margaret's pumpkin'?" I wanted the children to realize that the first line of the story was at the top of the chart. "Who knows where it says, 'You're going to be a jack-o'-lantern'?" I asked this question because I wanted the children to realize that the last line was at the bottom of the chart. The children participated further by saying, "I know where it says, 'Big, fat pumpkin.' " "I know where it says, 'pumpkin.' " This gave opportunity for further analysis of the story by the more able children.

To find out what cues a child used I often said, "How did you know where to find that?" If the child used a good method, such as, "Because it is the longest sentence," I commended him, hoping that he would continue to use that cue and that other children would use it also.

There was so much interest in this activity that the children brought more pumpkins—little ones, green ones, ripe ones, lop-sided ones. Some were made into jack-o'-lanterns, some into pumpkin custard. A story was written about each one, and for three or four weeks this was the main reading material. At the end of this time mimeographed copies of the stories were given to the children and put into books and taken home. Notes were sent to the parents with these stories suggesting that the parents read the stories aloud to

the children. It was requested that the parents permit the children to read parts they might know, but that the children be not asked or urged to try to read what they did not know. This was to prevent feelings of failure on the part of the children.

Many other experiences were handled in the same manner. Stories were written about the guinea pigs, the rabbit, the rats, etc. This provided weeks of repetition of important basic skills in the mechanics of reading with much variation and extensions adapted to the slowly developing abilities of the children. It avoided overwhelming them with difficulties too numerous and complex, as is usually the case when children are hurried in the beginning stages of learning to read.

2. What I think children gained from these experiences in learning to read.

a. Pleasure in the activity of reading.

b. An increased interest in reading activities, an increased desire to learn to read, an increased ability to read, especially such specific things as learning (1) that in reading a story you start at the top; (2) that in any reading you read from left to right; (3) to recognize certain parts of the story by placement, or by some characteristic feature; (4) to look for cues, such as letters, likenesses, or differences; (5) to recognize a few words.

READING FROM BOOKS

About Christmas time the majority of the class showed very great interest in reading, considerable ability to use cues, and some reading vocabulary. It therefore seemed wise to give them books which, because of their logical development and repetition of selected vocabularies, would meet their growing needs in reading. The class was divided into three groups, each group being given a different primer. They were able to read the first third of the primers with ease, but after about that much reading they began to encounter difficulties, so the primers they were using were put aside and new ones started. No drills were necessary. The children learned to read by reading much simple material. After reading about a third of two or three primers, it was easy for the children to read the latter more difficult parts of the books.

New words were developed from the context, in conversation or

through pictures. When a child did not know a word in reading, (1) sometimes I told him what the word was; (2) sometimes I helped him to get it from the context, by saying, "Where was the boy?" or "What do you think a dog would do if it saw a cat?" and the like; (3) sometimes, if it were a compound word, I helped the child to see the two words, for example, *someone*; (4) sometimes I helped the child to see a familiar simple word in a larger word, for example, *run* in *runner*; (5) sometimes I called attention to initial letters, such as the *r* in *run*, the *j* in *jump*, or endings, such as *s*, *ing*, *ed*, etc.

INDEPENDENT, VOLUNTARY READING

At about the time the children had finished the beginnings of the three primers I put other simple reading books into the library, such as pre-primers. (This was the only use I made of pre-primers.) When the children looked at these books they were very much delighted to find that they could read them. This was the beginning of their independent reading.

Other more difficult books—primers, first readers, and even second readers—were added from time to time to meet the growing needs of the children. The children discovered that they could read other books which had been in the library, and which, earlier in the year, I had read to them: for example, such books as *Junket Is Nice*, *Millions of Cats*, *Johnny Crow's Garden*, Social Science Readers, and the like. They soon began to use books to find out things they wanted to know; for example, one day we were talking about a porcupine, and a child said, "I saw a story about a porcupine. I will read it and find out what we want to know." So he found the story and read it to the group.

This experience stimulated an interest on the part of the other children in reading to the group. This interest was so keen that, in order to take care of it, we organized a "Story Group," which met once a week. At these meetings we listened to children read from any books they chose. It was understood that each one who read to the class must prepare to read the stories.

USE OF EXPERIENCE READING THROUGHOUT THE YEAR

Experience reading was enjoyed throughout the year, even after we began reading in books, and hardly a day passed but that there

was some need or desire for writing children's stories or poems on the board. These were either individual or group productions.

In order to conclude the subject of reading readiness, with which this paper proposed to deal, Miss Burke has submitted the following outline discussion of "How I Judged in November the Probable Success of Children in Learning to Read During Grade One."

I am presupposing that the group is composed of children who are intelligent, have a good background of experience, good language ability, and good physical health.

After about a month of participation in reading experiences, such as described in "How I Taught Reading in Grade One," I have considerable objective evidence upon which to base a judgment as to the probable reading progress of each child in the group. I base my judgment upon such things as:

1. Attitudes toward reading experiences.
   a. Does the child participate wholeheartedly, showing pleasure in success and putting forth effort to succeed?
   b. Does he participate more or less passively, as though it is expected of him by the teacher, or by the parent who will ask, "Did you read today?"
   c. Does he not participate at all, evidenced by inattention, unawareness of what is taking place?
   d. Does he show an awareness of reading situations, but also make definite plans to escape, such as by desiring to leave the room, and the like?
2. Social maturity.
   a. Is he able to listen to group conversation or directions?
   b. Has he sufficient control to sit with a group and give attention to a common problem?
3. Emotional stability.
   a. Is he emotionally stable?
   b. Does he worry about school work, especially in reading situations?
4. Interests.
   a. Is he interested in many things?
   b. Has he a limited, absorbing interest which shuts out all other interests, including learning to read?

5. Habits of work.
   a. Does he show initiative?
   b. Does he put forth effort to succeed?
6. Evidence of success in reading situations.
   a. Is he showing more and more awareness of the reading needs in his everyday living?
   b. Is he showing more and more awareness of words, letters, etc.?
   c. Is he beginning to use reading cues to find out what he wants to know?
7. Outside influences.
   a. Are his reading interests and abilities being allowed to develop naturally, or is he being forced beyond his ability by a misguided parent or other adult?
   b. Has he any poor attitudes such as fear or dislike of reading, or poor habits such as making up a story and thinking he is reading, which must be overcome before normal development can begin?
   c. Has he attended school regularly?

Results of an Experience Inventory in the High School

By GERTRUDE HILDRETH

PSYCHOLOGIST, LINCOLN SCHOOL, TEACHERS COLLEGE

Assisted by VICTORIA M. KELLER

DURING the 1936 Summer Session of the Demonstration School of Teachers College, Columbia University, all junior and senior high school students were asked to respond to an experience inventory developed by members of the guidance staff, for the purpose of obtaining fuller information concerning the background and experiences of the students. The chief purpose in collecting the information was to assist counselors, administrators, and teachers in gaining, with as little delay as possible, significant facts about the children and to study behavior and adjustment problems which are presented by individual students.

The inventory proved of value in making analyses of individual cases by furnishing a more adequate picture of character traits. The facts obtained were of immediate use in helping the pupil adjust himself, and the information proved to be basic to guidance activities in the school. The group method of using the inventory proved to be economical of time, for it enabled counselors, home room teachers, and members of the guidance staff to locate early in the term, pupils who seemed to present adjustment problems and to limit the necessary number of individual interviews to the most seriously maladjusted students. The summarized data furnish significant facts about typical adolescent experiences and problems.

The information asked for related to the earliest experience the pupil recalled, his most exciting experience, the thing wished for most, his greatest problem, his greatest fear, and his most common dream experiences. Since the inventory was used during the regular English period and the children assumed that the writing exercise was part of their English work, a normal classroom attitude toward the

test prevailed. Mimeographed sheets were prepared in advance, each of which contained one question relating to the various experiences. The questions appearing on the separate sheets were:

1. What is your earliest memory? Tell something about it.
2. What was your most exciting experience? Describe it.
3. What is your greatest problem?
4. Of what are you most afraid?
5. What do you dream of most?

Earlier, each pupil had filled in a Personality and Interest Inventory[1] in which he had listed the thing he wished for most. These wishes were also tabulated and are included in this summary.

The approximate median I.Q. and median age for each of the separate groups were as follows:

	Grade 7	Grade 8	Grade 9	Grades 10-11
Age	11-6	12-6	13-6	15-0
I.Q.	125	121	112	114

Approximately forty per cent of these children came from New York City, the others from various parts of the country. The total number of pupils by grade and sex groups was as follows:

Grade	Boys	Girls
7	9	11
8	7	15
9	15	13
10-11	18	26

RESPONSES BY GRADE GROUPS

(The numbers indicate number of responses for each experience.)

GRADE 7

Earliest Memory

3 first day at school
3 being hurt by falls and burn
1 whooping cough
1 grabbing father's nose for plaything
1 first snow
1 mother saying "Good night"
1 aunt's boardinghouse
1 climbing tree
1 visit to Texas
1 lost

[1] Published by the Bureau of Publications, Teachers College, Columbia University, New York, N. Y.

GRADE 7—Continued

1 being in baby carriage
1 being in play pen
3 no experience

Most Exciting Experience

4 on thrillers at amusement park
3 first airplane ride
2 almost drowning
2 chased by bulldog
1 escape from being run over by train
1 auto wreck
1 leaving on train for camp
1 in tornado
1 hurt by falling rocks
1 seeing World's Fair
1 when first heard family was coming to America
1 nothing

Greatest Problem

4 school
3 housing problem studied in school
2 knowing more about airplanes
1 being the daughter of superintendent of schools
1 finding my tennis racket
1 fear of drowning in ocean
1 curing a temper
1 problem too intimate to tell (girl)
1 getting a job later on
1 time for practice (music)
1 a funny feeling I can't describe
1 a place to live when I grow up
1 nothing

Afraid of

2 being kidnapped
1 dark
1 fire
1 bears
1 dogs
1 shyness
1 too intimate to disclose
11 nothing

Dreams

2 castles, queens, servants, soft beds
2 thoughts of the day
2 airplanes
1 being a detective
1 people
1 trip to Europe
1 being an Arab in Sahara Desert
1 horrible—do not like to disclose
1 good times
1 music getting louder and louder, things getting bigger and bigger
1 prehistoric times
5 do not dream

Greatest Wish

4 to be aviator
3 health
3 wealth
3 happiness
2 travel
1 telescope
1 to be rancher
1 to be ambassador to France
1 to be electrical engineer
1 to be teacher
1 to be actress
1 to be artist
1 to be detective
1 to discover things
3 not anything

GRADE 8

Earliest Memory

4 death in immediate family
4 accidents
3 playing in snow
3 mischievous behavior
2 grandparents

GRADE 8—Continued

2 swallowed money
2 infancy
1 parade
1 almost drowning
1 first day at school
1 cleanliness
1 Dad scolding mother
1 first bicycle
1 bitten by dog
1 gave brother black eye
1 picking flowers
1 drive with parent

Most Exciting Experience

3 almost drowning
3 fishing
3 trip to park
3 travels
2 ride on horses
1 football
1 visiting ship
1 trip to drug store
1 sliding on ice
1 climbing mountains
1 narrow escape while roller skating
1 frightened by bull
1 auto accident
1 travel alone from Italy to America
3 nothing

Greatest Problem

10 life occupation
3 school subjects
2 financial
1 making decisions
1 making a choice
1 shyness
1 consider unfair question
7 have none

Afraid of

4 dogs
2 auto accidents
2 snakes
2 high places
1 diseases
1 mother
1 dark
1 war, of being killed
1 being misunderstood
1 deserted houses
1 robbers
1 bull
1 hideous movies
1 worms
1 baseball coming at me
1 mice
7 nothing

Dreams

4 friends
4 home, family
2 detective
2 adventure
2 murders
2 thoughts of day
1 being rich
1 everything
1 sailing to Europe
1 distorted pictures of things
1 future
1 new inventions
1 finding dead brother alive in Europe
1 pirates' treasures
3 do not dream

Greatest Wish

4 travel
2 have a car
2 peace
1 money
1 wealth
1 even wealth for everyone
1 to be a friend
1 to have friends
1 airplane
1 houses

Grade 8—Continued

1 live on island
1 enough wood to finish hut
1 happiness
1 live in Tahiti
1 be with father
1 learn to sew
1 be in Europe
1 no crime
1 see brother
1 farm
1 be a boy
1 musician
1 dancer
1 nurse
1 accountant
1 surgeon
1 to have twins
1 to receive a letter from friend
1 actress
3 not anything

Grade 9

Earliest Memory

1 Washington, D. C.
1 Minnesota farm
1 visit to coal mine in Kentucky
1 country
1 park
1 hospital
1 parade
1 circus
1 spanking
1 first day in school
1 being taught to fight
1 learning to walk upstairs
1 new hat
1 observing a magnet
1 trying to fly and breaking leg
1 first ride in canoe
1 house catching afire
1 playing in tar
1 first appearance on stage
1 on a farm
1 circus at night
1 seeing blast that started oil gusher
1 not any

Most Exciting Experience

2 hit by car, leg broken
2 almost drowning
2 first trip on train alone
1 kicked while fighting
1 frightened when alone in apartment
1 graduating from high school
1 missing aunt at station
1 seeing New York when arriving from Europe

Greatest Problem

3 school subjects
2 learning to play violin
2 choosing occupation
1 choosing high school
1 controlling temper
1 trying to stop swearing (girl)
1 stage fright
1 money for future
1 hoping for success in vocation
1 dislike of school
1 mathematics
1 just school
4 have none

Afraid of

2 snakes
2 drowning
1 spiders
1 mathematics test
1 high buildings
1 hospitals
1 dark
1 dislike by people

GRADE 9—Continued

1 not realizing vocational ambition
6 nothing

Dreams

2 being famous
1 falling
1 school
1 hills
1 inventing airplanes, and airplane wrecks
1 always killed in dreams
1 ghosts
1 wonderful, unusual, horrible happenings
7 do not dream

Greatest Wish

7 wealth
3 health
3 travel
2 college education
2 get position
2 to be singer
2 have friends
1 happiness
1 family happy
1 engineer
1 explorer
1 actress
1 own farm
1 knowledge
1 not to have friend go away
1 teacher
1 heaven after death
1 take mother on trip
4 not anything

GRADES 10 AND 11

Earliest Memory

3 first day at school
2 being lost
2 sick from overeating
2 infancy—kiddy coop, baby carriage
2 first Christmas
1 flood
1 first bicycle
1 first trip to beach
1 new home
1 calling "shut up" over telephone
1 anxiety when father did not return when out buying horses
1 holding up traffic
1 fourth birthday party
1 vacation in Holland
1 being deceived by fake package of chewing gum
1 falling in tub of water
1 playing in Central Park
1 swimming on mother's back
1 first trip on boat
1 being cured of sucking thumb
1 playing in partly finished house
1 first glimpse of girl wearing formal evening gown

Most Exciting Experience

2 almost drowning
2 caught in storm
2 first airplane ride
2 falling off cliffs
2 missing train
1 cyclone
1 auto accident
1 lost in New York
1 attacked by boy
1 watch stolen
1 horseback ride
1 first trip to country
1 treed by bobcat
1 first appearance on stage
1 car afire
1 first trip to Coney Island
1 flower girl at wedding

GRADES 10 AND 11—Continued

1 first formal dance
1 rescuing a drowning man
1 accident on sleigh
1 scared by cricket in camp
1 trip to New York
1 almost kidnapped
1 nothing

Greatest Problem

4 choice of occupation
3 spending allowance
3 getting along with people
3 practicing on piano
2 shyness
2 getting up in morning
2 marks in school
2 choice of college
1 reading
1 managing paper route
1 geometry
1 never contented
1 controlling temper
1 getting along with younger brother and sister
1 milking cows
3 have none

Afraid of

8 snakes
3 dark
2 falling (high places)
1 cats
1 mice
1 centipedes
1 being lost in New York
1 diving
1 getting cramps while swimming
1 worms
1 self-service elevators
1 speaking before a group
1 electric apparatus
1 drunken men
7 nothing

Dreams

3 daily happenings
2 being in movies
2 people, boy friends, girl friends
1 school
1 nonsense
1 mathematics problem
1 have nightmares
1 chased by people
1 falling
1 my dog
1 traveling
1 narrow escape
1 boys I admire
1 accidents
1 being a nurse
1 being a character in books
1 of dead grandmother
1 that I am dead
1 friends having narrow escapes
1 hunting
1 fishing
1 finding money, not picking it up
1 fantastic dreams of Egyptian tombs
1 flying and something chasing me
6 do not dream

Greatest Wish

8 travel
5 college education
4 wealth
2 horse
2 bicycle
2 car
1 go back to own country
1 perfect eyesight
1 outdoor life
1 to found a Utopia
1 pet monkey
1 airplane
1 movie camera
1 badminton game
1 be athlete

GRADES 10 AND 11—Continued

1 own library
1 comfort
1 place to tinker (radio)
1 farm
1 sure income
1 own store
1 Model T Ford
1 cabin
1 artist
1 live on ranch
1 dancer
1 romance
1 drama instruction
1 science teacher
1 fame
1 go to country
1 clothes
1 doctor
1 friends
1 success in marriage and career
2 many things
7 not anything

SUMMARY OF RESPONSES

In the following summaries the pupils' responses were placed in the categories that seemed most appropriate. Each response was tabulated under only one category, though it might have been appropriately placed under two or more. For example, an item under "earliest memory" might have been appropriately listed under both "play" and "member of the family."

SUMMARY OF RESPONSES FOR GRADE 7

Earliest Memory

4 hurt or ill
4 play
3 school
1 lost
1 member of family
1 none

Afraid of

2 animals
2 kidnapping
4 other
11 nothing

Most Exciting Experience

8 ride or travel
8 accident or narrow escape
2 adventure
1 nothing

Dreams

4 travel
3 pleasure
2 daily activities
1 horror
5 other
5 do not dream

Greatest Problem

4 school
3 social problems studied at school
3 learning something
2 vocational and future
6 other
1 nothing

Greatest Wish

12 vocational and future ambition
3 health
3 wealth
3 happiness
2 travel
1 some article
3 nothing

Summary of Responses for Grade 8

Earliest Memory

9 accident
9 play or adventure
4 death
4 members of family
1 school
3 other

Afraid of

9 animals
7 accident or illness
2 people
4 other
7 nothing

Most Exciting Experience

9 ride or travel
8 play or adventure
6 accident
3 nothing

Dreams

8 pleasure
4 future
3 adventure
3 horror
2 daily activities
1 travel
3 other
3 do not dream

Greatest Problem

10 vocation
3 school
2 financial
2 decision
2 other
7 none

Greatest Wish

6 future and vocation
5 travel
4 some article or object
4 persons and friends
4 live elsewhere, change in home
3 wealth, money for self or others
3 better social conditions
1 school and learning
1 happiness
3 other
3 nothing

Summary of Responses for Grade 9

Earliest Memory

3 accident
3 play
3 family or home
2 travel
1 punishment
1 school
4 other

Most Exciting Experience

5 accident
3 travel
1 fright
1 school graduation
6 other
1 none

Greatest Problem

7 school
4 vocation or future
2 music lessons
3 other
4 none

Afraid of

3 animals, insects
3 danger, illness
1 future
1 people

Summary of Responses for Grade 9—Continued

1 school
6 nothing

Dreams

4 danger or accident
2 horror
1 school
1 future
1 other
7 nothing

Greatest Wish

9 vocation and future
7 wealth
4 friends, persons, family
3 health
3 travel
3 education and learning
2 happiness for self or others
1 other
4 nothing

Summary of Responses for Grades 10 and 11

Earliest Memory

6 play
6 accident or illness
3 school
3 travel
2 first Christmas
8 other

Most Exciting Experience

16 accident or danger
8 ride or travel
2 social
1 other
1 nothing

Greatest Problem

8 lessons, school
6 personal
4 future, vocational
4 people
3 money
3 other
3 none

Afraid of

12 animals
11 danger or accident
1 speaking in public
7 nothing

Dreams

6 persons
5 fantastic
3 future, vocational
3 danger, accident
2 daily events
2 school
2 adventure
1 travel
1 falling
3 other
6 none

Greatest Wish

14 object or article
8 travel
6 education
6 future vocation
5 wealth
3 change in home or present living arrangements
2 success in future
1 health
1 social betterment
1 friends
7 other
7 nothing

SUMMARY OF RESPONSES FOR ALL GRADES COMBINED

Earliest Memory

22 hurt, ill, or accident
22 play
8 member of family
8 school
5 travel
4 death
2 first Christmas
1 punishment
1 lost
15 other
1 none

Most Exciting Experience

36 accident, narrow escape, fright
28 ride or travel
10 play or adventure
2 social
8 other
6 nothing

Greatest Problem

27 school, learning
20 vocation and future
6 personal
5 financial
4 people
3 social problems being studied
2 decision
14 other
15 nothing

Afraid of

26 animals and insects
21 accident, illness, or danger
3 people
2 kidnapping
1 future
1 school
1 speaking in public
6 other
32 nothing

Dreams

11 travel, adventure
11 pleasure
8 future
6 daily activities
6 horror
6 persons
5 fantastic
4 danger or accident
3 school
1 falling
12 other
21 do not dream

Greatest Wish

33 vocational and future
19 some article or object
18 wealth
18 travel
9 school, education, learning
9 persons and friends, family
7 change in home and living situation
7 health
6 happiness
2 future success
1 social betterment
11 other
17 nothing

TRENDS FOR GRADES 7 THROUGH 11

In summary, the data for all the students from Grades 7 through 11 show the following trends:

Earliest memories relate to accidents, being hurt or ill, play activities, early school experiences, traveling, death, punishment, and situations involving members of the family.

The most exciting experiences these children have had relate to travel, accidents, narrow escapes, adventure.

The greatest problems confronting these pupils are those relating to future vocation; schooling, present and future; financial problems; and personal relationships.

These adolescents are most afraid of animals, insects, accidents, danger, illness, and kidnapping.

They dream most about travel, pleasantly toned situations, daily activities, adventure, horror, danger and accidents, the future, and school.

The things they wish for most are concerned with success in future vocations and life adjustments, some concrete object or article, wealth and money, health, travel, education, school lessons and learning, change in the family situation or relationships, happiness, friends, social betterment in the community.

Mathematics and the Imagination*

By W. D. REEVE

PROFESSOR OF MATHEMATICS, TEACHERS COLLEGE

IT IS doubtful whether any of us ever liked a subject because a teacher somewhere or other told us we were going to use it. It has been repeatedly pointed out that the "bread and butter" value of mathematics is very small. Moreover, we might as reasonably expect to interest a child in English by making him study Webster's Dictionary as expect him to like mathematics because he is studying a mathematics textbook, written by some "humdrum" author. As Professor David Eugene Smith expresses it, "Geometry must be taught as a spiritual kaleidoscope." Turn it around and you see all sorts of beautiful things. Or, in the light of modern ideas, geometry should be taught as a motion picture. The trouble with our traditional teaching of geometry is that it is static when it should be dynamic.

It is well known that mathematics has a wide use, but we cannot bring it all into the classroom. This was clearly shown by the futile attempts a few years ago to make geometry more interesting by an overemphasis upon its applications to church windows, tile floors, and the like. It is a different thing, however, to make much of the beauty and grandeur of the world about us, that is, in the "clothing of mathematics."

We cannot make it purely "child's play" because to do so would kill the science in it. That is why playing store, bank, and the like, if carried to the extreme, may be fatal. In other words, the work may

* The ideas that I have expressed here form the teacher's contribution to a discussion on "Other Worlds Than Ours" that took place in a seventh grade class which I taught in the Horace Mann School, Teachers College. I am indebted to several sources for some of the ideas. I would suggest the following books for any teacher who is interested in pursuing the subject further:

Abbott (Signs himself "A. Square"). *Flatland—A Romance of Many Dimensions.* Little Brown and Company, New York, N. Y., 1915.

Manning, Henry P. *The Fourth Dimension Simply Explained.* Scientific American Publishing Company, New York, N. Y., 1921; Same title, Munn and Company, New York, N. Y., 1910. *Geometry of Four Dimensions.* The Macmillan Company, New York, N. Y., 1914. *Non-Euclidean Geometry.* Ginn and Company, Boston, Mass., 1901.

turn out to be all project and no arithmetic. What we need is the right kind of appreciations, attitudes, and ideals with respect to mathematics, and these can be obtained only by artistic teaching.

The trouble with our teaching in the past was that we treated mathematics as pure science and therefore made the "child's play" impossible. As Coleridge put it, "Whilst Reason is luxuriating in its proper paradise, Imagination is wearily traveling on a dreary desert." We must remember that the charge, "Mathematics is mere drudgery," undoubtedly applies in the case of many children.

There is an interesting story about a small boy in a drawing class. Asked to draw a picture of a man, he represented him with a very large head and with only one leg. When the teacher remonstrated with him and pointed out the defects, the boy replied, "Well, that's the kind of man he is." In a large measure the boy was right; he had given free rein to his imagination and to his own originality of expression.

One way to solve the problem of arousing the pupil's interest in mathematics is to consider "other worlds than ours," and to handle the subject from a more human standpoint. However, the feasibility of publishing a course in mathematics that appeals to the imagination is questionable. The work of humanizing the teaching must be done largely by the teacher.

WHAT WE STUDY IN GEOMETRY

The geometry which we study in our schools is usually divided into two parts, plane geometry (two dimensions) and solid geometry (three dimensions), although of course we often speak of one-dimensional geometry. It is unfortunate that we live in a world of more than one dimension and teach, for the most part, only the geometry of Flatland. Thus, in studying the various types of geometry, the question of extending our ideas to a geometry of four dimensions naturally arises.

We are all familiar with the fact that any point in a plane may be determined by starting from a known point as a reference, and then measuring in three given perpendicular directions. The question, then, that naturally arises here is, May a point be determined by measuring in four given perpendicular directions from a known point of reference?

In order to understand Euclidean geometry, we draw figures and construct models, but the geometry of four dimensions cannot be so easily explained, since it deals with things which none of us has experienced. However, by analogy with our geometry of other dimensions we can conceive of situations which will help us to understand what a world of four dimensions would mean. It is not held that such an explanation is mathematical, nor that it is given for the purpose of trying to convince anyone that such a geometry exists, but merely to make clear from the properties and relations that exist in four-dimensional space, what we have in mind.

There is no point in saying that because one cannot comprehend the fourth dimension it does not exist. This proves nothing one way or the other. We pretend to know space, yet if it has no limits, we cannot comprehend it because we cannot form a concept of unlimited space; and if it has limits, we are not able to comprehend them. The mere matter of being unable to relate a situation to our own experience is no evidence that the situation is impossible. One cannot, for example, jump out of the window two-thirds of a time, and yet the fraction 2/3 has meaning. If one holds six pencils in his hand and is told to give away nine of them, this would seem as foolish to some people as the thought of a fourth dimension. Nevertheless, any child who has studied algebra has no hesitancy in taking 9 from 6, obtaining -3 for the result of the subtraction. At a time in the not far distant past, the airplane and the radio would have seemed miraculous. The whole development of non-Euclidean geometry is the result of the refusal of certain mathematicians to be satisfied with Euclid's so-called parallel postulate as the only possible basis for geometric thinking. For that matter we do not know what electricity is, although we measure it and talk about it glibly, and the same is true in regard to intelligence. Similarly, we are ignorant as to what life really is. Mathematicians formerly called $\sqrt{1}$ an imaginary number because they could not imagine it, and yet we know today that $\sqrt{1}$ is as real as any other number.

Professor David Eugene Smith has said:

> I know of nothing which acts as such a powerful antidote to that which I venture to call "opinionatedness," as a study of mathematics. To know that the light from solar systems far larger than our own has been thousands of years in reaching us gives us an idea of our infinitesimal nature, in comparison with

space about us, that can come only with a study of the science that it is ours to teach. A bacillus in our veins, so small as to be invisible through a powerful microscope, is a giant compared with ourselves in our relation to this space in which we live. Our doubts, our beliefs, our hopes, our fears are all so trivial, so infinitesimal, so like a lost electron in our solar system as compared with our relative importance in the universe as revealed to us by the calculations which mathematics brings to bear upon the great problem! Cowper wrote well when he put in verse the words,

> God never meant that men should scale the heavens
> By strides of human wisdom,

and even the mathematics of youth confirms the thought.[1]

If we take a given point and imagine it to move, we say that it *generates* a line. If the line moves in any direction except along itself it is said to generate a surface. And if the surface is moved in any direction except along itself it is said to generate a solid. Now someone may ask, "Can a solid be moved in a direction not contained in its three dimensions so as to generate a new figure whose relation to that solid is analogous to that of the solid and the surface?" If so, the new figure is the fourth dimensional figure we are trying to picture.

POINTLAND

In trying to understand what the fourth dimension means, let us begin by imagining what a static condition we should be in if we lived in Pointland—a land consisting of only a single point. Here a Pointlander would not be able to move (except perhaps in a whirl like the center of a revolving disc). What a cramped world this would be! Since none of us could be smaller than a point, and we think of Pointland as having only one point, we probably will think of only one of us in such a land. Each of us would then fill the whole of his universe. We think that we have but little room in a crowded city, although we have three dimensions (length, breadth, and height) in which to move; but in Pointland we could not move at all, although we should not realize it. Each would think of himself as the whole universe. The more narrow-minded a man gets the bigger he thinks he is. Mr. Pointlander, therefore, could not move, could not play any games, could not read or eat or drink, could not do

[1] Smith, David Eugene, "Religio Mathematici," *Teachers College Record*, Vol. 22, p. 385, November, 1921.

anything that we do; for doing involves motion and he could not move at all. We can roughly picture him like the head of a pin driven into a board and the hole plugged up.

LINELAND

Let us imagine that in Pointland we have human beings endowed with intellect and full reasoning powers, but who can see nothing outside of Pointland where they live. Let us further imagine that as in our world of three dimensions a Pointlander becomes adventurous and ambitious as we often do ourselves and in some mysterious way gains control of Lineland (a world of one dimension, i.e., the path of a moving point). Mr. Pointlander could go in two opposite directions only. He would now seem very free as compared with his former self, because he could go forward and backward at will. However, he would be quite limited in his movements. If there were three points, 1, 2, and 3 in order, point 1 could never be next to point 3 because point 2 would always be between them. Communication between nonadjacent points would have to be carried on by some sort of telegraphy or radio. At best, however, conversation in such a land would be "small talk," although it might be very important in a real sense. Our imaginary creature would then be like "a fly in a lemonade straw," or "a man crawling in a sewer." Someone has referred to the germs (really cylinders) that infest our bodies as illustrating the nature of Lineland because they have length but scarcely width or height. Blood corpuscles (Linelanders) are said to have a battle royal with the invaders (the germs) and if microbes are so constituted as to produce disease, we live or die as the corpuscles succeed in the fight.

FLATLAND

Let us imagine further that having become a Linelander our former Pointlander becomes intoxicated with his freedom and power and in some way or other becomes a Flatlander. He would then be somewhat like a bee between two panes of glass, free to move but only in two directions. The inhabitants of Flatland would be as safe from observation by each other behind a line as we are behind a wall. We could see them, but they could not see us. The amoeba has been mentioned as a good illustration of a Flatlander. It has seemingly length

and width and no doubt thickness as well, although it is probably not conscious of the latter. What a time a Pointlander set loose in Flatland would have! Moreover, there is no place in mathematics where the imagination can run riot as in Flatland. Speculation as to many of the conditions therein gives rise to great interest on the part of all pupils. Dr. Abbott's well-known book, *Flatland,* is an excellent bit of source material for such work.[2] Some may say it is all nonsense, but any teacher who has tried to get children interested in using their imaginations knows that there is a great deal of good sense in it. The pupils enjoy speculating about what kinds of classrooms they have in Flatland, how the pupils stand in class, how they write on the blackboard, which is a straight line, and so on. Obviously a Flatlander would draw a plane on his blackboard in a way similar to the way we draw a picture of a box on ours.

We may conveniently think of Flatlanders as our shadows. They would have no use for such words as "up" or "down," "high" or "low." Their houses are simply a series of rectangles, or, as Dr. Abbott puts it, pentagons. With the doors and windows shut, they could not get out. In a mathematics classroom no one could go to the front of the room without climbing over everybody in front and the teacher would always have to be there first. A savings bank in Flatland would be a circle, but it would have to be a very large one, for there could be no piling up of the money in the banks of this realm as there is in ours. People in Flatland would be utterly unable to tie the two ends of an ordinary piece of twine into a knot. The pupils in the mathematics classes in Flatland could not make use of the method of proof by superposition in the way we use it (unless, perchance, the figures to be superposed were properly arranged in the same order) because it would be impossible for them to pick up any figure.

If one of these shadow creatures were suddenly transported into our world and should watch one of us push an ice-cream cone down into a pail of water (apex first), he would see first a point and then a series of circles getting larger and larger and finally disappearing altogether. He would seem to us to be greatly handicapped because if he were put inside a rectangle he could not get out and yet he could enter or leave on dimensional space at will.

[2] See footnote on page 593.

THREE DIMENSIONS

Now let us assume for illustrative purposes that one of our "shadow" people becomes endowed with a knowledge of three dimensions. He could at once do wondrous things in the eyes of his fellows. He could vanish and return at will. He could not be held in the strongest prison of the land. He could see into his neighbors' houses and even into their very insides. And if, before reappearing, he should turn over he would be a sort of reflection of his old self in the eyes of his friends, that is, he would be left-handed if he had been right-handed before and his heart would be on his right side instead of his left (assuming that it was on the left at first). You might think he would lie on his face. This would be as comfortable as before.

FOUR DIMENSIONS

Now this same person, having become endowed with a knowledge of three dimensions, might become so intoxicated with his power that he would discover a way to master the fourth dimension. Let us assume that this is so. He could then perform the same antics before us that we have supposed him able to perform before our two-dimensional shadows. None of our prisons could hold him, he could take his departure from one of our homes without going out at a door or a window and we would not be able to tell how or when he left. He could rob a bank safe without blowing it or without even knowing the combination. He would be able to tie a knot and then pull it out with the ends of the string fastened. In this world he could turn a football wrong side out without cutting it. Turning a right-hand glove inside out to make it fit the left hand would have the same effect as simply turning it over in the fourth dimension, just as the flat drawing of such a glove can be turned over in three dimensions. In the latter, the fingers and thumb do not come out through the wrist but every part by itself is turned over and the glove remains a right glove. A fourth-dimensional physician could perform operations upon the innermost part of the body without even piercing the skin. Thus, operations for appendicitis would become more fashionable than ever because taking out an appendix would be much like cutting a corn on one's toe. With such power one could see how much money his neighbor had in his pocket. It has even been suggested by

someone that perhaps many articles which are lost by each of us in the course of a lifetime disappear by rolling or falling out of third dimensional space into the fourth dimension. If a Fourlander talked to us we would be as embarrassed as a Flatlander is should we talk to him. In traveling about, the Fourlander would use spheres for automobile wheels and in general would seem a superman to one of us. With such power it is easy to imagine a Fourlander becoming interested in the question whether higher space than four dimensions exists and so we might imagine him to go on. In fact, our algebra helps us to appreciate somewhat the sensibleness of such speculation.

Thus, by studying the various spaces, we are able to conceive a world of four dimensions. The unit in Pointland would be a point, that of Lineland a line segment, that of Flatland a square, and that of our land a cube. Such work stimulates the geometric intuition of the pupil and incidentally puts him in possession of many important geometric concepts.

To quote Professor Smith again:

> We agree that spaces of higher dimensions than the one in which we live can easily be conceived by analogy, and we agree without question to the paradoxes which we meet in the study of infinity, and yet we feel that it shows our great wisdom, or perhaps our boldness, if we deny the soul an existence. Strange, that in algebra we accept without the slightest question the idea of the permanence of law, but that our little natures should so often boast that we deny the permanence of the soul! . . .
>
> We must face the inevitable, that in the domain of the infinite, the parts may indeed be equal to the whole, in spite of the childish beliefs of our finite minds. The mathematician continually meets this necessary conclusion; it is a commonplace; to him the laws of the finite give way without question when he enters the domain of the infinite. In all the finite, indeed, he sees the infinite. He knows that there is a one-to-one correspondence between the points in a sphere and those in the entire universe about him, and between the number of vibrating points in his brain and the number in all space. In other words, within the brain of each of us, there is a point that corresponds to any given point in the universe, say one on the surface of Neptune. If we take another point, say the center of a fixed star, there is one special point, and one only, within each brain that also corresponds to that. If we move the point in the fixed star ever so slightly, we move the point in the brain so that it shall continue to correspond to it. Does all this signify anything to us? I certainly do not know. Does it mean that the planets have their influence upon us? I certainly do not know, but with my finite mind I am led to say I do not think so. Does this mathematico-physical relation of our brains to all the universe about us have any deeper

significance? I do not know. But one thing I do know, that thoughts like these give new meanings to the words, "For, behold, the Kingdom of God is within you."[3]

The people who have studied the subject of the fourth dimension may be grouped as follows:

1. Those who are interested principally in investing the two- and four-dimensional people with all their queer antics and relations, as we have just done.

2. The mathematician who finds the language and ideas of the fourth dimension a help in drawing general conclusions. It is he who introduces the negative number, the notion of infinity, and the tangent of 90° for the purpose of enriching his vocabulary and attaining greater power of expression. Mathematics permits no exceptions.

3. The class led by Professor Zöllner of Leipzig to whom the fourth dimension became the abode of the spirit world. For them it solved a great problem. The Bible is used as testimony and the extra dimension is read into the passage, "May be able to comprehend with all saints, what is the breadth, length, depth and height." (Ephesians III, 18.)

In conclusion it may be said that it is highly improbable that a fourth dimensional physical world really exists. As a mental conception it may have a place, but our physical experience includes only the three dimensional. A discussion or study of such a world does not, however, do us any harm, and it does furnish us with thinking material that will sharpen our wits and furnish us with mathematical recreations.

[3] Smith, *op. cit.*, p. 386.

America's Largest City Experiments with a Crucial Educational Problem

By WILLIAM A. McCALL

PROFESSOR OF EDUCATION, TEACHERS COLLEGE

and JOHN J. LOFTUS

ASSISTANT SUPERINTENDENT OF SCHOOLS, NEW YORK CITY

AMERICA'S largest city is, of course, New York. Education's biggest problem is whether to make traditional schools better traditional schools or whether to transform them into some type of "progressive" or activity schools. The problem of whether to use the schools for bringing about a fundamental reconstruction of society is the only one that might be regarded as equally important, though the problem of social improvement may prove to be merely an aspect of activity education.

For years there has been a growing agitation in the New York City schools for the abandonment of the practice of merely learning lessons out of textbooks. Here and there teachers tried out the activity methods.

Under the leadership of Dr. Harold G. Campbell, Superintendent of Schools, and Dr. Stephen F. Bayne, Associate Superintendent in Charge of Elementary Schools, a few schools were authorized to inaugurate an activity program experimentally. Shortly thereafter it was argued that a few schools would not be sufficiently representative of the city's numerous schools with their diversified backgrounds. Hence, the program was approved for several schools in each of the communities of the twenty-two assistant superintendents.

Each district superintendent was asked to designate typical schools in which the prevailing sentiment was rather favorable to an activity program and which were located in representative sections of their district. By the time this process had been completed seventy schools with an enrollment of about 50,000 pupils had been designated as experimental activity schools.

Dr. John Loftus, Assistant Superintendent of Schools, was assigned

to supervise and evaluate the activity schools and to promote the program. He had the hearty co-operation of other officials at headquarters. Dr. Loftus appointed an Advisory Committee consisting of members of the New York City educational staff and representatives of the various metropolitan colleges.[1] These were chosen, in part, to make sure that both points of view would be fairly represented.

The history of the main events of the first year of the program is suggested by the major questions which were discussed by the Advisory Committee:

How shall the schools be helped to inaugurate the activity program? Dr. Loftus, the principals, and the teachers together are engaged in an intensive consideration of what changes in the schools and in the relation of the schools to the community are implied by the philosophy of an activity program. A weekly bulletin of helpful suggestions is distributed to the principals and teachers. The co-operating colleges are providing afternoon, evening, and Saturday classes devoted to methods and supervision of activity teaching. Certain special supplies useful in activity teaching are being provided. WPA teachers are available temporarily for aiding pupils and teachers in special areas such as art, drama, music, and handicraft. Measuring instruments are being so constructed that they will serve both for evaluation of the effects of an activity program and for guidance toward such a program. Codes of observation are being developed which likewise serve the double purpose of evaluation and guidance.

[1] The members of the Advisory Committee are Dr. John J. Loftus, Assistant Superintendent, Chairman; Dr. Stephen F. Bayne, Associate Superintendent, Honorary Chairman; Miss Aimee L. Julian, Secretary; Dr. W. C. Bagley, Professor of Education, Teachers College; Miss Dorothy Bildersee, Principal, P. S. 80, Manhattan; Dr. John K. Bolen, Assistant Superintendent; Dr. F. C. Borgeson, Professor of Education, New York University; Miss Florence Brumbaugh, Hunter College; Mr. Hazen Chatfield, Assistant Superintendent; Mr. Benjamin Greenberg, Assistant Superintendent in charge of Testing Program, Division of Elementary Schools; Dr. Theresa C. Gunther, Brooklyn College; Dr. John P. Herring, Research Specialist; Dr. I. L. Kandel, Professor of Education, Teachers College; Dr. Paul A. Kennedy, Assistant Superintendent; Dr. William A. McCall, Professor of Education, Teachers College; Miss Alice V. McCormick, Principal, J. H. S. 91, Manhattan; Dr. William J. McGrath, Board of Examiners; Dr. A. Gordon Melvin, City College; Dr. Lois Coffey Mossman, Associate Professor of Education, Teachers College; Mr. Eugene A. Nifenecker, Director, Bureau of Reference, Research and Statistics, Board of Education; Dr. Beryl Parker, Professor of Education, New York University; Dr. C. Frederick Pertsch, Principal, J. H. S. 29, Brooklyn; Miss Margaret P. Rae, Assistant Superintendent; Dr. Robert K. Speer, Professor of Education, New York University; Dr. Frank D. Whalen, President, New York Principals Association and Principal, P. S. 3, Bronx; Dr. J. W. Wrightstone, Research Associate, Teachers College.

How much of the school's program shall be of the activity type? When the Board of Superintendents authorized the establishment of experimental activity schools it stipulated that these schools would be held responsible for the basic skills. As a consequence about half of the school time is regularly devoted to these subjects. The extent to which this learning of skills emerges naturally from the activity program proper varies doubtless from class to class. As the teachers grow in their ability to develop pupils' skills in an activity program, the schools may abandon set periods for more or less isolated drill.

Shall all teachers be required to conform to the activity methods? Since such a requirement seemed alien to the philosophy behind the activity movement, it was decided that no teacher would be compelled to become a participant.

What evaluation should be attempted at the end of the first year? Each school and each district set up its own committee of evaluation and devised its own methods of evaluation. It was thought that in the initial stage of the program this system of self-evaluation would promote much keen thinking about the nature and purposes of an activity school. Also it was thought that these diverse schemes for evaluation might provide ideas for a later, uniform, carefully prepared schedule. Reports of the results of the self-evaluations were sent to the Advisory Committee.

How should the recommendation to be presented to the Board of Superintendents as to the success of the program be determined? A sharp clash of opinion developed within the Advisory Committee on this question. A majority favored a carefully controlled experiment contrasting the informal activity schools with an equal number of comparable formal non-activity schools. A minority distrusted scientific experimentation in education and wished to settle the question by resort to philosophical and psychological arguments and to conversion by contagion rather than by resort to obtainable objective evidence. When the minority was assured that the evidence would include a fair sampling of *all* the desirable outcomes of education, an agreement was reached to set up a controlled experiment and let the results from it determine the final recommendation.

Dr. McCall and Dr. Herring were commissioned to prepare really comprehensive achievement tests of the objective type, and Dr. Wrightstone was asked to develop reliable codes of observation in

special areas covering outcomes least likely to be tapped by pencil and paper tests.

Should all the schools be used in the controlled experiment? Those familiar with research and the labor entailed urged that the scientific experiment be limited to a small number of schools in order that it might be exceedingly thorough. Considerations of thoroughness demanded a few schools, but the mobility of the City's population, the diversity of its communities, and the reliability of final results argued for many schools. After balancing these considerations, eight activity schools and eight matching non-activity schools were designated.

What should be done with the remaining activity schools? It was decided to think of the remaining activity schools as being engaged in a sort of "rolling snowball experiment." Their success would be judged solely by their power to win converts among other schools. Automobiles, electric lights, and bathtubs have come to prevail throughout the nation through just such snowball experimentation.

What extra precautions should be taken to see that the matched schools really do match pupil with pupil and community with community? Dr. McCall and Dr. Herring were commissioned to develop a measure of brightness and another convenient measure of each pupil's home and community, in order that pupils might be matched whose intellectual heredities are equal and who are influenced by equally educative homes and communities. In addition the background measure would provide schools with facts that would aid them in developing community programs.

When should the controlled experiment begin? Even when all teachers are alert to the needs of the school, it requires time to transmute a traditional school into an activity school. Someone has said that it requires ten years for a new philosophy to saturate all of a person's actions. A time allowance of ten years for orientation was quite impractical, but a period of three semesters was allowed before the controlled experiment was officially started by an elaborate barrage of initial equating and achievement tests. The achievement tests or duplicate forms will be given from time to time to measure growth.

How long should the experiment run? Tentatively it has been decided to continue the experiment not less than six years, in order that one generation of elementary pupils will be in an activity school from the first through the sixth grade. However, measurements of

progress will be made annually and tentative conclusions will be formulated.

How make sure that the activity schools are really activity schools and that the control schools are not? Merely to label a school an activity school does not make it one and this is also true for a non-activity school. In the control schools there are sure to be teachers who, with all the will in the world, cannot remain purely traditional, just as in the experimental schools there are teachers who cannot be made into activity teachers. Because of the decision not to force all teachers to try to be activity teachers, it may very well happen that there will be a greater difference within one school than between any two matched schools, thus providing as valuable comparisons within a school as between schools. Also it is imperative that all concerned should know the extent to which an activity curriculum has actually been inaugurated. So a sub-committee was asked to devise some means of measuring the extent to which a school is an activity school. It commissioned Dr. McCall and Dr. Herring to create the measuring instrument.

What steps should be taken to make the findings from the controlled experiment acceptable everywhere as impartial and unbiased? Since the original Advisory Committee was appointed primarily to help inaugurate the activity program, its membership was composed of more enthusiasts for than against the activity program. When it was decided to conduct a controlled experiment it was deemed wise to add to the Committee additional exponents of a more traditional type of education. This was done to make sure that the experiment would be conducted without bias. To this end, Dr. Bagley and Dr. Kandel were added to the Advisory Committee.

So far as seems wise to those responsible, instruments, processes, and materials devised for use in this investigation will be made generally available, and subsequent articles will keep educators informed of the progress of the experiment and amplify important matters barely mentioned in this general introduction.

New Studies in Education

PROVISIONS FOR GENERAL THEORY COURSES IN THE PROFESSIONAL EDUCATION OF TEACHERS*

THIS study was made to examine the present status of such education courses as have to do with the philosophical or theoretical aspects of education. It aimed to discover the relative importance of general educational theory in teacher training, the kind of theory taught, and the adequacy of the content of present theory courses. It aimed also to investigate the fitness of teachers of general theory for their task, and their attitudes toward current educational and social issues.

The term "general educational theory" is here used to include that type of course which has as its purpose the development of a broad point of view about life and education. The course which typically comes nearest to accomplishing this purpose is philosophy or principles of education. Allied courses which in varying degree deal with the broader aspects of education, and with which this study is only incidentally concerned, are history of education, principles of teaching, and introduction to education.

For the purpose of examining the teaching of general educational theory in the light of the developing social and educational situation, the writer has drawn freely from material in American history and especially the history of education. Studies of the origin and development of teacher-training institutions in the United States, of the curricula of these institutions at different periods in their history, and textbooks for courses in education were examined.

To discover recent tendencies, the yearbooks of several national educational organizations, educational magazines, and recent books dealing with the general aspects of education were examined. Interviews and conferences were held with professors of Teachers College, Columbia University, and of the School of Education, New York University, and graduate students at Teachers College who have been engaged in the teaching of general courses in education.

To discover the relative importance of general educational theory courses in teacher-training curricula, a number of studies dealing with the curricula of teacher-training institutions were examined. To determine more specifically the content of principles or philosophy of education, a catalogue study was made of sixty institutions engaged in the professional education of teachers.

Further information was secured through the use of three instruments, two

* By Obed Jalmar Williamson, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 684.

of which were designed specifically for this study. One of these instruments consisted of a questionnaire designed to elicit information about the training and experience of the instructors in educational theory courses, the attitudes of instructors in teacher-training institutions toward the courses in general theory given in their institutions, what degree of importance they ascribed to these courses, and the criticism they had to offer with respect to them.

The second instrument was designed to reveal the educational philosophies of the instructors. Seventy-nine propositions were phrased about certain issues in education to which the respondent indicated his agreement or disagreement. For the purpose of discovering the social philosophies of the instructors, a third instrument was used, Harper's *A Social Study*.[1] It contains seventy-one statements involving conflicting views in the fields of economics and politics. These latter two instruments were used on the assumption that what the instructor does in the classroom depends very much upon his own beliefs about education, the individual, society, and life in general.

The questionnaire, the educational instrument of seventy-nine statements, and Harper's instrument were sent to each member of the faculties of twenty-five normal schools and liberal arts colleges in the eastern and middle western sections of the United States.

FINDINGS

Important findings of the study were as follows:

1. The content of courses in general educational theory was derived from the dominant ideas and ideals of American life and from the ideas of such European philosophers as Rousseau, Hegel, and Herbart. At about the turn of the present century, American philosophies of education began to emerge, the most outstanding of which is the social-democratic philosophy of John Dewey. The general educational theory taught has thus been a mixture of the European and American influences with a growing emphasis on the latter.

2. A relation can be seen between the importance attributed to the teaching of general educational theory at any period, and the character of the period. When there is conflict in society, when tradition is challenged by new ideas, there is more interest in theory and particularly the theory of education. Up to 1860 there was little conscious recognition of general theory. The prevailing religious, economic, and social beliefs were accepted unquestioningly. With the introduction, however, of Pestalozzian, Hegelian, and more particularly Herbartian philosophies, traditional theories were challenged; the teaching of general theory rose increasingly in importance. It maintained a relatively large position until the rise of science with its emphasis on measuring and testing and its correlative tendency to abandon theory as such. Since 1905 scientific and technical courses have tended to diminish the place given to the broadly theoretical aspects of education.

3. Since 1930 the increasing realization of the inadequacy of social and economic arrangements has generated greater interest in the general theory of education in certain areas of the profession. Today, some leading educators are urging intensive study and recon-

[1] Harper, M. H. *A Social Study*. Bureau of Publications, Teachers College, Columbia University.

struction of the American philosophy of education.

4. There seems to be a pronounced lag between the importance ascribed to general educational theory by certain leaders in education and the curricular practices of teacher-training institutions. In contrast with evidence of revived interest in general theory, most of the teacher-training institutions have continued to emphasize courses in the science and techniques of education.

5. Not only has theory played a diminishing role in teacher-training curricula, but a large percentage of the instructors in teacher-training institutions are skeptical of the value of general theory.

6. The low status of courses in general theory is due, in large part, to the lack of specialized preparation for this type of course. General educational theory has not been regarded as a field of specialized study as have the fields of administration and psychology. Administrators of teacher-training institutions assign general courses to the members of their staffs to suit administrative convenience.

7. Not only did the teachers of general theory courses seem to be inadequately prepared for instruction in the theory courses but their social and educational philosophies fell short of what might reasonably be expected. The score of the Harper test revealed much to be desired in the matter of liberality, consistency, and the independence of thinking. Likewise, the educational instrument revealed a lack of carefully thought out philosophies of education on the part of these instructors. Very few individuals were clear-cut conservatives or liberals. Most of the total scores approximated a 50-50 ratio, indicating a high degree of inconsistency. The function of courses in general educational theory in clarifying the viewpoints of students seems unlikely of realization as long as the instructors are themselves thus confused.

RECOMMENDATIONS

It is recommended that all public school teachers give more consideration to the philosophical aspects of education; that teacher-education institutions require at least one course of a broadly theoretical nature; that such courses be taught by instructors who are well-grounded in general and educational philosophy, in the history of education and civilization, and in general understanding of present social-economic problems.

THE HISTORY OF LOCAL SCHOOL CONTROL IN THE STATE OF NEW YORK*

THIS is a study of the election, duties, powers, and responsibilities of elective school officers in the State of New York. The territorial divisions, including the district, the town, the village, the city, and the county, were considered separately.

In discussing the constitutional and legal requirements for voting, the author traces the evolution of the qualifications,

* By Carl H. Griffey, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 683.

noting the divergence of the requirements for voting in civil and educational elections. While property qualifications for voting in civil elections have been practically eliminated since 1826, these requirements have been retained in school elections. The suffrage in school elections has been extended by admitting to the ballot the parents of school children and others having charge of school children. When school officers were elected at general and charter elections in cities there was no separation of school electors from the general voters.

The district was the only organization created specifically for school purposes. It has always been controlled by the electors at district meetings. The demand for popular control and the ability to regulate the local tax rate have rendered the abolition of the district organization almost impossible. Fortunate situations arising from favorable financial valuations have made serious modification of the district plan a remote consideration.

The early officers of the district were the trustees, the clerk, and the collector. To these were added, at a later date, the librarian and the treasurer, when their services were needed. The neighborhood and high school districts were special adaptations of the district to meet specific needs. The former provided an organization for small groups living near the boundary of another state, while the latter made possible the maintenance of a high school by several districts without any district losing its identity. The organization and conduct of business were determined by the electors, and their wishes were carried out by a board of education elected by them.

The union free school district provided a more elaborate system and furnished villages and cities with the opportunities of developing graded schools and academic courses. These systems were controlled by a board of education, which had the authority to engage a superintendent of schools.

The town was a managerial and directive unit between the district on the one hand and the county and state on the other. The commissioners of common schools and school inspectors were elected at the regular town meeting until they were superseded by the town superintendent in 1856, after which the educational influence of the town declined. The supervisor and town clerk performed financial and clerical duties for the district but were never regarded as school officials. A state-wide attempt to make the town a unit of school organization met with such strong opposition that the plan was abandoned.

The villages early felt the need for the consolidation of school districts. The union free school law was passed in 1853. By this act boards of education were chosen at charter elections. When the villages grew to such size that election by assembly was not practical, corporate authorities were given the power to approve the budget and to perform other functions that had been exercised by the voters. Sometimes the board of education was chosen at separate school elections, and budgets for buildings were voted at special tax elections. There was also the practice of delegating to the corporate officials authority to perform these functions but always with specified limitations.

The cities of the state started with the district system, and by evolution and adaption developed organizations to meet their individual problems, under regulations and restrictions of the state legislature by special enactments. The City

School Law of 1917 established a more uniform organization of the city school systems. When the growth in population made school meetings impractical, functions were delegated to corporate authorities. These were usually the Common Council and the Mayor. Because of the political significance of these functions, city officials were reluctant to relinquish them and frequently sought complete control, including the appointment of school officers and the authorization of school budgets. In general, however, the people retained the power to elect the controlling school officers and to pass upon the larger outlays for building construction.

The county school officers were coordinating links between the districts and the state department. They first came into existence in 1841 and, with the exception of the years 1847 to 1856, have continued to the present time. The school commissioner was a legal county officer for fifty-four years. He was elected by popular vote and was a political officer with no required educational qualifications.

However, the district superintendent who succeeded him was required to meet certain strict educational specifications. He was appointed by a board which had well-defined political affiliations.

FACTORS RELATED TO THE CHANGES IN SCHOOL ADJUSTMENT OF HIGH SCHOOL PUPILS*

WITH SPECIAL REFERENCE TO SELECTED FACTORS IN THE HOME ENVIRONMENT

THE purpose of this dissertation is to study the relationship between changes in the school adjustments of high school pupils and changes in certain factors of the home environment. The investigation also studies the factors of sex, over-ageness, under-ageness, age, and intelligence related to changes in the pupil's school adjustment and the home environment.

Changes in school adjustment were determined, first, by changes in score on sections of the Symonds Adjustment Questionnaire, and second, by changes in teacher designation of pupil adjustment. Changes in the home environment were determined by use of the Myers Intra-Family Questionnaire, which surveyed the adjustment of the pupils to discipline and supervision in the home and secured information in regard to relationships existing between the parents, between parents and children, and between children.

The questionnaires were given and designations were made in the spring of 1933 and repeated in the spring of 1934, and from these data various adjustment groups were formed. As has been said above, the major purpose of the study

* By Lester A. Kirkendall, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 705.

was to determine the relationship between changes in school adjustment and changes in the home environment.

FINDINGS

When changes in teacher designation of adjustment were related to changes in the home situation no relationship was found. Very small correlations were found between changes in scores on the Symonds Adjustment Questionnaire and the Myers Intra-Family Questionnaire. The correlation between changes on the total scores of the two questionnaires was —.04. Correlations between sections of the two questionnaires were similarly negligible. Apparently no relationship existed between the changes in score on the two questionnaires.

When changes in score on the Symonds Adjustment Questionnaire were related to changes in the various adjustment groups based upon teacher designations no relationship was found. An analysis of teacher designations indicated that the teachers were more sensitive to behavior indicative of poor adjustment than they were to behavior indicative of good adjustment. The well adjusted individuals, from the teachers' viewpoint, tended to be the good students academically speaking, while the poorly adjusted pupils were often over-aggressive in behavior and careless or indifferent regarding school work. An analysis of the teacher designations indicates that the changes in adjustment of a pupil may be a function of a change in teachers as the pupils move from grade to grade. This indicates the necessity for a careful study of teacher adjustments when concern is felt for pupil adjustments.

When age was studied in relation to changes in adjustment, there was an indication that with increasing age a pupil tended to move toward better school adjustments. The relationship was not clear when dealing with age groups determined by years. The pupils were then placed in two groups. The senior group ranged in age from seventeen to twenty and the junior group from thirteen to sixteen. When this grouping was made, significant differences in changes in adjustment appeared. On both the Symonds Adjustment Questionnaire and the Myers Intra-Family Questionnaire the changes were favorable to the senior pupils. The fifteen-year-old pupils showed poorer changes than did any other age group. Since this is about the age when most pupils transfer from junior to senior high school, it may be that these unsatisfactory changes were a function of the transfer from one school unit to another. When the pupils were divided according to over-ageness and under-ageness in relation to the rest of the group, it was found that the under-age pupils tended to improve in adjustment while the over-age pupils, already poorly adjusted, became even more poorly adjusted.

There was no relation between intelligence and changes in adjustment in school or home, nor were any significant sex differences found.

The study includes reports of twenty interviews held with those pupils showing most marked changes in school and home. These interviews revealed a great many factors in and out of school which played upon the pupils' adjustment. The presence of these other factors may account in part for lack of relationship between changes in score on the two questionnaires.

The findings of this study have some very interesting implications. In view of

the demonstrated relationship of the home as a long-time factor in the adjustment of the pupil, the failure to find a relationship between changes in the school adjustment of the pupils and changes in factors in their home environments emphasizes the importance of the early influence of the home. It appears that by the time the pupil has reached the adolescent period the influence of the home is so firmly fixed that a change such as occurs in the ordinary course of living cannot be expected to make much change in the pupil's adjustment. For counselors and guidance workers the findings have an added implication; namely, that minor changes effected in the homes of adolescent pupils cannot be expected to work miracles in the way of changing the pupils' conduct. While not decrying the desirability of co-operation between school and home, the findings seem to indicate that more emphasis should be placed on working with the adolescent pupil as an individual and helping him to work out his own problems.

Adjustment seems to be a slow process for most pupils, in view of the small changes made by the group on the questionnaires. Therefore, one should not expect to effect immediate changes in the adjustment of an individual by some slight manipulation of his environment.

The findings of the study point to the need of a counseling and guidance program designed to take account, as far as possible, of all the factors which may be effecting pupil adjustment. This program should also extend the counseling work over a longer period of time than is usual.

STUDENT AID*

BASES OF SELECTION OF STUDENTS TO WHOM LOANS, SCHOLARSHIPS, AND FELLOWSHIPS ARE AWARDED IN A GRADUATE SCHOOL OF EDUCATION

IF STUDENT aid as a practice is to continue in our present social system, the entire field, including the basic assumptions in terms of which systems of student aid have been developed, should be scientifically investigated. Three major investigations would help to place the granting of awards on a more scientific basis. One of these should be the formulation of the fundamental philosophies and principles involved in student aid. The second major research should be a comparative study of trends and practices in the awarding of loans, scholarships, and fellowships in various institutions in different countries, particularly in England and Russia, as well as in the United States. In such an investigation, the practices in different countries should be evaluated in the light of the philosophy and principles underlying the granting of student aid. The third should be an experimental study in which the characteristics, contributions, and opinions of a group of

* By Margaret Ruth Smith, Ph.D. Teachers College, Columbia University, Contributions to Education, No. 704.

students granted awards are compared with a group that applied for but were refused financial aid, and with a control group that did not apply. Such an investigation obviously is necessary as a basis for evaluation of present practice. It is this third research that constitutes the problem of the present investigation. The subjects used in this investigation were students who applied for aid and, in the case of the Control Group, were attending a graduate school in an American University.

More specifically the purpose of this study was to ascertain the bases of selection of students to whom loans, scholarships, and fellowships were awarded in Teachers College, Columbia University, and to evaluate the effectiveness of the selections by means of certain criteria applied to three groups: (1) those given awards (the Award Group); (2) those refused awards (the Rejected Group); (3) a group which did not ask for or receive aid (the Control Group). These groups were studied for the years 1927-1928, 1930-1931, 1932-1933, and 1934-1935, making a total of 1,494 individuals. All differences, where possible and desirable, were treated statistically to find their sampling reliability. The study examines and compares the three groups with respect to: characteristics, the scholarship record within the institution, abstract verbal ability test scores, ratings of completed dissertations, subsequent careers, and the points of view of the three groups toward loans, scholarships, and fellowships in Teachers College.

FINDINGS

It is clearly evident that it is the policy of the institution to grant awards to students who have done or are doing graduate work at Teachers College. Furthermore, there is a tendency in the College to give awards to students who have progressed farther in their educational careers than have the average students in the institution. In regard to no other items studied, except study in the institution before applying, previous accumulation of graduate points in Teachers College, and residence in the College at the time the decision was made regarding the grant, is there definite evidence either of prejudice or of conviction concerning the importance of any characteristic as a basis of selection. Although statistically so few of the separate factors studied can be shown to influence the selection for awards, they may nevertheless be operating in individual cases.

If the records made by members of the Rejected Group who studied in Teachers College during the years examined, necessarily limited in number by non-attendance, can be taken as an indication of the scholastic standing the entire group would have achieved in the College, the difference between the Award Group and the Rejected Group in scholarship is not so great as might be expected. The difference is not statistically significant, although it is in favor of the Award Group. But the superiority of the Award Group over the Control Group in respect to scholarship is statistically reliable and would be expected to exist in larger samples.

In the measure of abstract verbal ability, the Award Group is differentiated from the Rejected Group to a degree that closely approaches statistical reliability. The difference in this respect between the Award Group and the Control Group is significant. If the results of the abstract verbal ability tests indicate the capacity to learn, to do college work successfully, to solve new problems, espe-

cially of a verbal and abstract nature, the weighting which may be given to this factor as a basis for granting awards is justified.

No significant differences appeared between the Award Group and the Rejected Group in the evaluation of their subsequent careers. However, all but five of the differences in the factors measured were in favor of the Award Group. Although no significant differences were found between the Award Group and the Rejected Group in the measures of their subsequent careers, the Award Group is significantly superior to the Control Group in the study of four measures.

The subsequent repayment of loans was used to evaluate the selection of loan recipients. On the whole, when the intervening depression years are taken into consideration, the groups liquidated well their financial obligations to the institution. It is not the size of the loan alone that influences the burdensomeness of repayment but rather other factors such as health, financial conditions, and family obligations.

Although the data presented on subsequent careers do not give conclusive proof of the superiority of the Award Group, they do show that the trend, as pictured in the four years studied, is toward superiority.

Not only the objective evidence of achievement in subsequent careers but the subjective opinions of the individuals regarding the value of awards is important in the evaluation of the effectiveness of the program of student aid. Apparently, the Award Group felt the grants were effective and of value. The Rejected Group (who returned questionnaires) were, on the whole, fairly well satisfied with the student aid system which operated. The Control Group were largely not concerned with the policies of granting awards since the majority did not need aid from Teachers College, or realized that they did not possess the necessary professional and scholastic qualifications for grants.

The convincing indications of the superiority of this Rejected Group over the student body in general, represented by the Control Group, suggests definitely that the present method of acquiring applications for loans, scholarships, and fellowships is obtaining the better students. It does not seem necessary to canvass the student body of the College further for candidates for awards, because those who applied constituted a select group. However, the attraction of able applicants appears to have been accomplished with greater success than does the granting of awards to students.

The lack of sufficiently large differences in favor of the Award Group is disappointing, and although the methods of selection used can be approved in that they have insured the selection of good people for awards, they have not guaranteed the choice of individuals sufficiently more worthy or better qualified than those rejected, or those who did not apply for aid. It has not been proved that the methods used are as good as they should be, although in terms of the amounts granted and the funds available for student aid in this institution, the selections made were fairly satisfying. However, their inadequacy as demonstrated by the failure to select a group significantly superior to the Rejected Group in almost all respects makes the need for further study of methods of selection essential. Further refinement in the selective system will have to await qualitative rather than

quantitative studies, such as measures of personality and of success.

RECOMMENDATIONS

In the opinion of the writer, certain changes in administration would improve the situation in regard to the student aid program in the institution studied. They are briefly stated as follows: The first important change of procedure within the present system of granting awards in Teachers College should be the co-ordination of all student aid facilities. The amounts of the awards should be increased and more funds should be made available for student aid as well. It is also particularly important that one policy of student aid be followed and clearly and definitely understood in any institution with a program of student aid. That is, it should be understood whether the grants are to be awarded primarily on the basis of merit, or need, or both.

College & Alumni Notes

COLLEGE NOTES

Board of Trustees of Teachers College

The following appointments in Teachers College have been approved by the Board of Trustees:

Max R. Brunstetter, Ph.D., as Director of the Bureau of Publications
Henry H. Linn, Ph.D., as Superintendent of Buildings and Grounds
Dorothy A. McGinnis, as Director of Dining Halls

The following promotions of members of the staff, effective July 1, 1937, have also been approved by the Board of Trustees:

Robert Bruce Raup, Ph.D., from Associate Professor to Professor of Education
L. Thomas Hopkins, Ed.D., from Associate Professor to Professor of Education
Clifford L. Brownell, Ph.D., from Associate Professor to Professor of Physical Education
Floyd Barrett O'Rear, Ph.D., from Associate Professor to Professor of Education
Willard Slingerland Elsbree, Ph.D., from Associate Professor to Professor of Education
Clarence Linton, Ph.D., from Associate Professor to Professor of Education
Helen Judy-Bond, Ph.D., from Associate Professor to Professor of Household Arts
Maude B. Muse, A.M., from Assistant Professor to Associate Professor of Nursing Education
Esther McDonald Lloyd-Jones, Ph.D., from Assistant Professor to Associate Professor of Education
Lester Dix, Ph.D., from Assistant Professor to Associate Professor of Education
William B. Featherstone, Ph.D., from Assistant Professor to Associate Professor of Education
Lennox Grey, Ph.D., from Assistant Professor to Associate Professor of English
Ernest G. Osborne, A.B., from Associate in Parent Education to Assistant Professor of Education
Mary E. Chayer, A.M., from Instructor in Nursing Education to Assistant Professor of Nursing Education
Magdalene E. Kramer, Ph.D., from Associate in Speech to Assistant Professor of Speech
Arthur Eugene Bestor, Jr., Ph.B., from Associate in History to Assistant Professor of History

Administration

Provost M. C. Del Manzo attended the National Education Association meetings at New Orleans and also visited the general offices of the Tennessee Valley Authority at Knoxville in order to study their personnel and organization methods and review the research under way in office management and procedures.

Professor and Mrs. Jesse H. Newlon sailed on March 12 for a three months' trip abroad. They will spend some time in Italy, Russia, and England, returning to this country in the early part of June.

Advanced School of Education

The announcement of fellowships and scholarships available for 1937-1938 brought in 635 requests for blanks, and 471 applications were filed, about half of which were for Advanced School awards. Competitive examinations, which are required for both Teachers College fellowships and Advanced School scholarships, were held on March 5 and 6 in forty-five centers in the United States, Canada, England, Puerto Rico, and Hawaii. Students already matriculated were excused from the examination. Alumni of Teachers College co-operated in administering the examinations and interviewing the applicants.

Dr. Irving Cheyette (Ed.D. 1936) has been appointed supervisor of practice teaching in instrumental music at New York University. He will continue his work in music in the public schools of Mount Vernon, N. Y., also. Dr. Cheyette is scheduled to conduct the orchestral clinic at the Colorado State College of Education, Greeley, Colo., in June.

Mr. James C. Adell took office on February 1 as director of the Cleveland, Ohio, bureau of educational research. For some years he has been head of the science department at the John Jay High School, Cleveland.

Mr. John C. Dixon has left Atlanta, Ga., for Chicago to take up his duties with the Julius Rosenwald Fund as director for rural education.

Mr. J. Colin English began his work as state superintendent of public instruction in Florida on January 5.

Administration of School Systems

The report of the Hartford, Conn., School Survey, made by the Division of Field Studies, was formally presented to the Board of Finance and the Board of Education of the City of Hartford on Thursday, April 1. Professor George D. Strayer, director of the survey, Professor N. L. Engelhardt, associate director, and Professor Paul R. Mort met with the Hartford groups and participated in the presentation.

On April 7 the Survey was presented to the public at an open meeting held under the auspices of the Hartford City Council of Parent-Teacher Associations. Professors Strayer, Engelhardt, Mort, and W. S. Elsbree spoke at the meeting, presenting various phases of the study. A second presentation of the report was given on April 9 at the meeting of the Hartford Citizens' Committee for Social Welfare. Representatives of clubs, social agencies, churches, and school and employees groups attended the meeting.

The April meeting of the Administration Club was held at the home of Professor and Mrs. Strayer on April 17. Dr. Alfred D. Simpson, Assistant Commissioner of the Division of Finance, New York State Education Department, spoke on the problems of state school financing.

"The Modern School" by Professor Engelhardt is the leading article in the April issue of *The American Architect*.

The report of the Commission for the Study of the Educational Problems of Penal Institutions for Youth to Governor Herbert H. Lehman is now available in printed form. Copies may be secured by writing to Commissioner Edward P. Mulrooney, State Department of Correction, Albany, N. Y.

The dissertation of Dr. Eugene G. Wilkins, entitled *The Assessment and Collection of School Taxes*, has recently been published by the Bureau of Publications of Teachers College. This dissertation

will be particularly interesting to those who are studying the problems of fiscal independence of school systems as well as tax methods.

In February Mr. D. Ross Pugmire, now confidential secretary to Mr. James Marshall, vice-president of the New York City Board of Education, successfully stood his final oral examination for the degree of Doctor of Philosophy. His dissertation is entitled *The Administration of Personnel in Correctional Institutions in New York State.*

Dr. A. L. Threlkeld, superintendent of schools, Denver, Colo., is coming East to fill the vacancy in the superintendency at Montclair, N. J., caused by the death of Dr. Frank G. Pickell last November.

Professor Engelhardt and Messrs. George R. Champlin, Ralph Dailard, Philo T. Farnsworth, Nolan D. Pulliam, Carroll B. Quaintance, and Thomas George Walker of the advanced course in school business administration, spent the week of March 8 in Hartford, Conn., studying the business practices of the school system. They are preparing a report on this subject in connection with the comprehensive survey being made by the Division of Field Studies of Teachers College.

Wealth, Children and Education, by John K. Norton and Margaret Alltucker Norton, has been published recently by the Bureau of Publications of Teachers College. This book is a member of the Strayer-Engelhardt School Administration Series.

Adult Education

On February 18 Professor Edmund deS. Brunner addressed the Extension staff of the Louisiana State College of Agriculture on "New Tasks for Extension." On February 19 and 20 he visited in a number of Louisiana counties and spoke at several community meetings.

On February 27 Professor Lyman Bryson presided over the broadcast and luncheon conference of the Public Education Association held at the Hotel Astor, New York City. The group discussed the problem of education for peace.

The Adult Education staff is offering the Introductory Course in Adult Education to a group of sixty-five public school and WPA teachers in Scranton. This course is under the sponsorship of Mr. Thomas Francis, superintendent of schools in Lackawanna County, and is given at St. Thomas College.

Commercial Education

Business and Personal Typewriting, by Clyde E. Rowe, associate in Commercial Education at Teachers College, and L. W. Korona, of the Pittsburgh, Pa., public schools, has recently been published by Ginn and Company.

Mr. Rowe was a member of the panel at the Clerical Practice and Junior High School Question Box Section meetings of the Eastern Commercial Teachers Association, which were held in Boston, Mass., on March 27.

Mrs. Esta Ross Stuart was on the panel of the Secretarial Question Box Section at the same convention and answered questions which pertained to secretarial practice.

Curriculum

Professor L. Thomas Hopkins is on leave of absence during the Spring Session. He is spending his time in writing and travel.

On March 13 Superintendent David Weglein of Baltimore, Md., his Board of Superintendents, and the chairmen of his eight curriculum committees were the guests of the Curriculum Club of Teachers College at a luncheon conference held at International House. Mr. Hugh B. Wood, president of the Curriculum Club, presided. Following the presentation of the Baltimore program by Dr. Weglein and his associates, a panel discussion was conducted by Professor Herbert B. Bruner, who is curriculum consultant in Baltimore. The question considered was "What contribution, if any, is the widespread curriculum activity in the schools today making toward the social ends of education?" At the beginning of the discussion Dr. John Dewey made a brief statement of some of the social ends which education must serve, referring to some of the obligations of the schools in relation to the attainment of these ends. Members of the panel included Professors W. H. Kilpatrick, George S. Counts, N. L. Engelhardt, E. S. Evenden, Harold Rugg, and M. B. Hillegas, and Mr. Fred Kelley.

Baltimore has a very interesting curriculum program. During the last ten years the teaching, supervisory, and administrative staff has produced courses of study in most of the subject-matter fields. The committees now are turning their attention primarily to modern socio-economic problems, such as "The Effect of Technological Development upon Society," "The Family in Present-Day Life," and "International Problems and Their Import," in an attempt to introduce these topics more widely into the curriculum materials and classrooms.

Several Teachers College students, Mr. William Patterson, Mr. C. Maurice Wieting, Dr. Frank Misner, Mr. George Dawson, Mr. Harry Carlson, Miss Vera Gushee, Miss Luella Overn, and Miss Alma Moore, accompanied Professor Bruner on trips to Baltimore during the first semester in connection with this program.

In two conferences held in St. Louis on January 23, Professor Bruner met with the St. Louis County Commission on the Social Studies and certain members of the Missouri Council for the Social Studies for a discussion of the plans for revising the social studies curricula for Missouri. Mr. J. C. Aldrich of the Webster Groves High School presided at the meeting of the morning session, and Dr. Charles A. Lee (Ed.D. 1937) of the faculty of Washington University, St. Louis, presided in the afternoon.

On December 29 Professor Bruner addressed two sections of the annual convention of the Pennsylvania State Education Association. He discussed "The Place of Modern Social and Economic Problems in the School Curriculum" in the joint session of the Department of County Superintendence and Department of District Superintendence; and he spoke to the Department of Graded schools on "What Kind of a Curriculum Do We Need in the Elementary Schools?"

At New Orleans during the week of February 20 Professor Bruner appeared on several programs. At the National Conference on Research in Elementary School English he gave an evaluation of the Fifth Annual Research Bulletin, *A Summary of Principles of Method in Elementary School Composition,* presented by Dr. Harry A. Greene of the University of Iowa. At the joint meeting of the Society for Curriculum Study and the Department of Supervisors and Directors of Instruction Professor Bruner gave a critique of a section of the Yearbook entitled "Organizing Educational Forces for Curriculum Development," which was presented by Dr. Ernest O. Melby of Northwestern University.

He also participated in a discussion of state and city programs in a group session of the Department of Superintendence.

Educational Economics

Professor Harold F. Clark addressed the teachers of Wilmington, Del., on March 4. The title of his talk was "Important Changes in the Social Studies in Elementary and Secondary Schools."

On March 12 Professor Clark spoke at a session of the Schoolmen's Week in Philadelphia on the topic "What Is New in Jobs?"

Educational Psychology

Professor Arthur I. Gates, a member of the committee which prepared Part I of the Thirty-sixth Yearbook of the National Society for the Study of Education, "The Teaching of Reading," spoke before the group discussing this volume at the recent meeting of the Department of Superintendence in New Orleans. He also read a paper entitled "The Reading Program for Dull-Normal Pupils" before a session of the American Association of Educational Research.

Dr. Irving Lorge of the Institute of Educational Research of Teachers College spoke at the annual meeting of the Association of University Women in Savannah, Ga., on March 16. His topic was "Adult Education."

Professor P. M. Symonds and Mr. John P. Anderson, intern in the Guidance Laboratory at Teachers College, are the authors of a joint section on "Mental Hygiene of the Normal" in the December 1936 issue of *The Review of Educational Research*, which is devoted to mental hygiene and adjustment.

Elementary Education

Members of the staff in Elementary Education participated in the following meetings during the month of February: Parent-Teacher Association, Riverside, Conn.; Elementary Teachers Association, Youngstown, Ohio; Association of Childhood Education, Muncie, Ind., St. Louis, Mo., Fort Worth, Tex., and Des Moines, Iowa; State Teachers Association, Tulsa, Okla.; Parent-Teacher Association, Glenwood Landing, N. Y.; teachers of Harrison, N. Y.; addressed the student body and faculty of Coppin Normal School for Negroes, Baltimore, Md.; Teachers Association, East Aurora, Kane County, Ill.; and teachers, administrators, and parents of Harrisburg, Pa.

Professor J. R. McGaughy participated in the program of the National Council of Childhood Education during the National Education Association convention in New Orleans.

The staff and major students in Elementary Education will hold a conference at Teachers College on April 30 and May 1. The theme of the conference will be "The Implications of Participation in Planning for Education." The speakers for the first meeting will be Professor Boyd H. Bode of Ohio State University and Professor Paul R. Mort of Teachers College. The session held May 1 will include panel discussions, reports from these panel discussions to the general session, and a closing address by Professor William H. Kilpatrick. A luncheon will be served in the Grace Dodge Room.

Fine Arts

Professor Belle Boas gave a lecture on "Techniques of Art Teaching" on March

19 at the office of The Federal Art Project.

The department of Fine Arts announces the publication of the third number of *Art Education Today* by the Bureau of Publications of Teachers College. This annual is devoted to contemporary art movements and problems and represents the divergent opinions of educators throughout the country.

Professor Arthur R. Young lectured before the Southeastern Arts Association in Raleigh, N. C., on April 8 and 9 on the subject "A New Emphasis in Art Education." The general topic for discussion by the Association was "Art in Democratic Living."

Professor Young will lecture before the student body of The Teachers College of Connecticut, New Britain, on April 21. His topic at that time will be "Art and Mass Production."

Guidance Laboratory

On March 24 Professor Esther Lloyd-Jones spoke at the West Point Military Reservation on "A Neglected Aspect of Children's Education." On April 23 she will address the annual convocation of students and faculty of St. Lawrence University, Canton, N. Y.

After attending the meetings of the American Council of Guidance and Personnel Associations at New Orleans, Professor Lloyd-Jones went to Chicago where she spent several days at the Institute for Juvenile Research and at Northwestern University.

One of the interesting recent activities of the Laboratory has been work on a sound motion picture and some silent pictures of the work of the Guidance Laboratory.

On March 19 Dr. Grete Simpson, consultant in the Guidance Laboratory, was a member of a panel which discussed "Making Use of Individual Differences for Educational Growth," in connection with the Hudson County Educational Conference. Dr. Simpson served as a member of the committee which organized this Conference.

Guidance and Personnel

On the evening of March 3 Professor H. D. Kitson invited the students in the course in Placement and Employment Office Procedure to meet Miss Winifred Hausam, manager of the Pasadena, Calif., Employment Bureau and director of the Western Personnel Service, and Miss Helen Fisk, associate director of Western Personnel Service, Pasadena. A number of guests from personnel and guidance agencies in New York City also were present.

Mrs. Katherine Treat Patch, director of the Cleveland Guidance Service and assistant director in charge of guidance of the National Youth Administration in Ohio, visited Teachers College recently. Mrs. Patch was entertained at tea in Whittier Hall Social Parlors by the Teachers College Branch of the National Vocational Guidance Association.

Dr. Roy Anderson participated in a panel discussion on "Guidance—An Indispensable Step in a Successful Industrial Program" at the New York Urban League on February 27. Dr. Anderson has been asked to serve on the advisory committee for the League's Fifth Vocational Opportunity Campaign to be conducted among Negro colleges.

At the recent convention of the National Vocational Guidance Association in New Orleans, Dr. Anderson was elected treasurer of the Association.

Miss Alice Adanalian (A.M. 1934), until recently employment secretary of the Y.W.C.A. of Yonkers, N. Y., has accepted a position in the Cleveland Guidance Service of the National Youth Administration.

Student Personnel Administration

On February 27 one hundred students, advisers, and deans of the metropolitan area attended a luncheon at the Women's Faculty Club. Professor Harriet Hayes presided and introduced the various speakers, who gave reports of the annual meetings recently held in New Orleans. Mrs. Ruth Wright, adviser of women, City College, summarized the section meetings dealing with the National Youth Movement. Professor Esther Lloyd-Jones reported on the meetings of the College Personnel Association, the election of its new president, Dr. A. J. Brumbaugh, University of Chicago, and the address given by Dr. E. Lee, director of the National Occupational Conference. Miss Mildred K. Kammerer, dean of girls, Curtis High School, Staten Island, N. Y., reported on the high school section meetings which were led by Dr. Marion Brown. Professor Ruth Strang discussed the paper read by Dr. Alvin C. Eurich, University of Minnesota, on the contribution of examinations to instruction; the Yearbook on Guidance to be prepared for 1938 by the National Society for the Study of Education; and Dr. Brumbaugh's excellent description of personnel work as a whole and the broad functions which deans of women are performing at present in teacher training institutions.

The Student Personnel Administration Club has elected the following officers for the Spring Session: President, Elsie Eddy; secretary, Bernice Cole; treasurer, Esther Knoer; program committee, Ethel Crockett (chairman), Elizabeth Husted, Mrs. Helen Merritt, Ann Morrow, Catherine Sammis; Social Committee, Mrs. Jessie Witcomb (chairman), Margaret Crosby, Mrs. Emily Housel, Lurana Lord, Lawrence Riggs; publicity chairman, L. E. Willmott; good will chairman, Margaret Raffington.

The second meeting of the Club was held at the Riverside Church on March 11. Dean Thyrsa Amos, of the University of Pittsburgh, discussed the problem of bridging the gap between high school and college. Mr. David Cannon described his experiment with the Speech Choir of Virginia State College, and discussed the organization of a verse speaking choir as an extracurricular activity and an effective instrument for guidance.

Higher Education

Professor Donald P. Cottrell addressed the Cherokee County Education Association, Gaffney, S. C., on February 18 at a meeting open to the public. His topic was "New Horizons in Education." The following day he addressed the students and faculty of Limestone College, in the same city, on "Fundamental Values in College Education." These speaking engagements were filled en route to the National Education Association meetings in New Orleans and the Progressive Education Association meetings in St. Louis.

History

Professors J. Montgomery Gambrill and Harold Rugg of Teachers College and Miss Josephine Mayer of Lincoln School were speakers at the meeting of the New York Society for the Experimental Study of Education which was held at New York University on February 5. The general topic for discussion was "Vital

Issues in Social Studies Curriculum-Making."

Horace Mann School

On March 6 Miss Marion Flagg spoke on "Creative Motion" at a music conference held at New York University, and on March 20 she addressed the Progressive Education Association at New Britain, Conn., on "Using Interest in Child Development."

Miss Flagg has been reappointed chairman of the Experimental Projects Committee, Music Educators National Conference, and also has been made a member of the Committee of Educational Advisors, National Music League Radio Experiment. She contributed an article entitled "The Enquiring Mind" to the 1936 Yearbook of the Music Educators National Conference; and "Music for the Forgotten Child" to the February issue of the *Music Educators Journal.*

On March 6 Miss Mary Harden read a paper before the Elementary Social Science Section of the Progressive Education Association's Regional Conference at Newark, N. J. Her subject was "Social Sciences in the Elementary School Classroom."

Library

Professor Eleanor M. Witmer attended the meetings of the Department of Superintendence in New Orleans, February 20 to 26, and met with the Joint Committee of the National Education Association and the American Library Association.

Classroom Literature for March presents a list of reference books for the elementary school. An index to the earlier issues has been prepared and is available upon receipt of requests accompanied by a self-addressed stamped envelope.

Information on the school library has been made readily available in the January 1937 issue of *The Library Consultant.*

Miss Alice Lewis, whose services as a member of the Library staff will be remembered by many students, died at her home in Bowling Green, Ky., on February 12.

Mathematics

Professor W. D. Reeve addressed the mathematics teachers of the State Teachers College at De Kalb, Ill., on February 16 on the topic "Important Problems in the Teaching of Mathematics." At the convocation of the College the next morning, he gave a lecture on "The Place of Mathematics in Modern Education." On February 19 and 20 he attended a two-day session of the National Council of Teachers of Mathematics at the Palmer House in Chicago, where he made an address. As the representative of Dr. H. E. Slaught's former students, Professor Reeve also spoke at a dinner of the Council. A large part of the program was devoted to a celebration of Dr. Slaught's seventy-fifth birthday.

Mr. R. R. Smith and Professor Reeve were discussion leaders at the mathematics luncheon at the Palmer House in Chicago on February 20. Mr. Smith's table discussed "Introduction to Geometry" and Professor Reeve's table, "Significant New Developments in Mathematics."

Professor Reeve also attended a two-day session of the Joint Commission of the Mathematical Association of America and the National Council of Teachers of Mathematics on "The Place of Mathematics in Secondary Education" on

February 21 and 22 in Chicago. This important Commission has been given a grant of five thousand dollars by the General Education Board for this work.

Mr. John Swenson attended the meetings of the National Council of Teachers of Mathematics in Chicago on February 19 and 20. He also addressed the teachers of Kansas City, Kan., and worked with them in connection with the mathematics curriculum which they are making.

Music Education

One hundred and twenty-five students and faculty members of the department of Music Education attended the performance of the Bach B Minor Mass in Carnegie Hall, New York City, on March 2. The arrangements for attendance were made by Professor Howard A. Murphy.

Registration for the European Field Trip in Music Education next summer is increasing steadily. The complete itinerary is now available and may be obtained by writing to the Secretary of the International Institute, Teachers College. The group will sail at midnight on June 18 and will be back in New York on August 9. Individuals wishing to extend the trip may do so.

The final meeting of the New York In and About Music Educators Club was held at the Great Northern Hotel on April 10. The general subject discussed was "Music in Adult Education." The speakers and topics were as follows: Mrs. W. R. McFarland, educational director, Music Education Unit, U. S. Works Progress Administration, Department of Public Welfare, "The Government's Contribution"; Miss Marion Rous, director of the Greenwich House Music School, "The Contribution of the Settlement House"; Mr. Kenneth S. Clark, "The Contribution of the Popular Song"; Dr. Sigmund Spaeth, well-known lecturer, "The Contribution of Newer Approaches in Listening"; and Dr. Willem van de Wall, "A Condensation of Outstanding Developments."

Lucille Dresskell, assisted by her husband, Professor Miles Dresskell, and accompanied by Richard Hageman, gave a song recital in Town Hall, New York City, on February 12. Many Teachers College students and members of the faculty were present.

Professor Peter W. Dykema has inaugurated as a part of the adult education program in Maplewood, N. J., a general chorus which now has a membership of about two hundred voices.

Professor James L. Mursell attended the Seminar on General Education held at the University of Florida, Gainesville, Fla., February 15 to 19.

The Plymouth Institute Orchestra, under the direction of Professor Dresskell, gave a concert at the Plymouth Church in Brooklyn, N. Y., on February 14.

A sonata recital, the third of the series being given by Professor Dresskell, was presented on March 31 in the Grace Dodge Room of Teachers College.

Professor Edwin J. Stringham's symphonic poem, Nocturne, was performed by the Chicago Symphony Orchestra, January 28 and 29. The Chicago critics were unanimous in their praise of this work. Nocturne was played in New York by the Philharmonic Orchestra several years ago, and previous to that had been performed by the Rochester Symphony Orchestra on an American program in which it received the greatest number of votes. A copy of the score of Nocturne

has been requested by the Philadelphia Public Library Music Department for inclusion in its permanent collection of outstanding American works.

Last summer Professor Stringham was awarded the Munich Prize of one thousand dollars in recognition of his work in musical compositions.

Eight members of the Music Education staff attended the Eastern Music Educators Conference in Buffalo, N. Y., on April 14, 15, and 16. The Teachers College luncheon was held on April 15 at the Hotel Statler.

Beta Gamma Chapter of Phi Mu Alpha Sinfonia was active in the Sinfonia reunion held at Buffalo on April 16.

On February 17 Phi Mu Alpha Sinfonia presented in Milbank Chapel a recital of American compositions. Mr. Charles Haubiel, who was among the composers represented on the program, was present and played some of his own compositions.

Alpha Theta Chapter of Sigma Alpha Iota presented on March 12 in the Grace Dodge Room its annual MacDowell Day Musicale for the benefit of the MacDowell Colony.

A Music Education Club has been formed in Teachers College with the following executive committee: Mr. R. J. Neil, chairman, Miss Florence Cattadoris, Miss Deborah Hunt, Mr. David Rosenberg, and Mr. Carl Theman. The opening program on March 10 included a discussion of choral music with special reference to the Bach B Minor Mass, led by Mr. Albert Stoessel of the Juilliard School of Music, who directed the Oratorio Society presentation of the Bach Mass.

Dr. Raymond Burrows assisted at the piano recital which Miss Flora Thomas gave on March 14 at Steinway Hall, New York City.

Natural Sciences

A committee of noted writers and critics appointed by the Book-of-the-Month Club has recently announced awards to four American writers whose books, published between May 1, 1935 and September 1, 1936, seemed to the committee to have been insufficiently read by the general public. One of these awards was granted to Dr. Paul B. Sears, research associate in the Bureau of Educational Research in Science, Teachers College, for his book entitled *Deserts on the March.* The award to Dr. Sears was made for "the distinction with which he has given one of the most pressing problems of contemporary American life a dramatic literary treatment."

Professor S. R. Powers attended the Seminar on General Education which was held at the University of Florida, February 15 to 19. The object of the Seminar was to consider the major trends in general education.

A paper entitled "The Selection, Organization, and Evaluation of Localities Available for Unspecialized Field Work in Earth Science in the New York City Region" was presented by Professor Herbert J. Arnold at a joint meeting of the National Association for Research in Science Teaching and the American Educational Research Association in New Orleans on February 23.

Part II of the Thirty-sixth Yearbook of the National Society for the Study of Education contains three chapters devoted to the contributions of science to international understanding. The contributors are Professor Frederick Barry of Columbia University and Professor

Emeritus Otis W. Caldwell and Professor Gerald S. Craig of Teachers College.

On February 20 Professor Craig presented at the joint meeting of the National Council on Elementary Science and the National Association for Research in Science Teaching a paper on "The Contribution of Science in the Elementary School to the Development of Social Attitudes."

Professor Craig was speaker at a panel on elementary science at a meeting of the Progressive Education Association in Newark, N. J., on March 6.

Normal School Education

In connection with the convention of the American Association of Teachers Colleges held in New Orleans, Professor E. S. Evenden attended the meetings of the Committee on Standards and Surveys of that organization, at which plans were formulated and discussed for an extensive study of the standardizing and accrediting procedures of the Association.

On February 20 Professor Evenden, as chairman of the Advisory Educational Committee of the National Society for the Prevention of Blindness, presided at a breakfast meeting of a selected group of presidents and deans of institutions in which teachers are educated. At this meeting Dr. Anette Phelan presented the work of the National Society, and reports were given by President George A. Selke of State Teachers College, St. Cloud, Minn., President H. L. Donovan of Eastern Kentucky State Teachers College, Richmond, Ky., and President R. W. Fairchild of Illinois State Normal University, Normal, Ill., in which they described the results of the studies made in their institutions by representatives of the National Society for the Prevention of Blindness. The Educational Committee met on February 21 to discuss ways in which the work of this organization could be utilized in institutions for the education of teachers in order that future teachers would become more sensitive to the problems in this field and better able to maintain conditions conducive to sight-saving in the public schools.

On February 25 Professor Evenden visited Louisiana State University at Baton Rouge, where he and other guests of the institution were entertained by President and Mrs. J. M. Smith after an inspection of the university buildings and grounds. President Smith did his graduate work at Teachers College as a major in the field of the professional education of teachers.

Professor W. C. Bagley is rapidly recovering from the illness which caused his temporary withdrawal from his instructional duties and prevented his attendance at the various meetings in New Orleans.

Professor Thomas Alexander summarized the discussion of the various plans for integrating the work of the practice school and the college departments before the Supervisors of Student Teaching at New Orleans on February 23. Professor Florence Stratemeyer also appeared on a program of that organization and discussed the papers presented by Dr. John G. Flowers, of State Teachers College, Montclair, N. J., and Dr. W. E. Peik, of the University of Minnesota.

Professor Alexander was the guest of honor and principal speaker at the dinner meeting of the Tenth Annual Georgia Press Institute in Athens, Ga. He spoke on the topic "Fundamentals of Education." This meeting was attended by most of the newspaper editors in Georgia.

Professor Stratemeyer, who is on leave of absence during the Spring Session, attended the annual convocation of Kappa Delta Pi, held in New Orleans on February 19 and 20. Professor Stratemeyer is first vice-president of the Executive Council of this organization.

Nursery School and Kindergarten–First Grade Education

Miss E. Mae Raymond and Professor Mary M. Reed were guests at a meeting of the St. Agnes Chapel Parents Association on March 10 at which moving pictures of the activities of the children in the kindergarten at St. Agnes Chapel were shown. After seeing these pictures Miss Raymond and Professor Reed discussed the ways in which learnings and developmental needs of these children were satisfied through the materials provided and the guidance given.

A series of panel discussions of needs to be met in planning a community educational program is being held in Peekskill, N. Y. Professor Reed took part in one of the discussions on February 18, interpreting the needs for nursery school education in a community.

Miss Charlotte Garrison spoke to the parents in the Hillside Homes Development on March 5 on the topic "Appropriate Play Materials for Little Children."

On February 19 Miss Alice G. Thorn was the dinner guest of the Kindergarten Department of the State Teachers College at Trenton, N. J. She spoke on "Music for Young Children."

The Association of Childhood Education at its last meeting, which was held in San Antonio, Tex., March 30 to April 3, celebrated the one hundredth anniversary of the establishment of the first kindergarten in Blankenburg, Germany. A pageant presenting in dramatic form the achievements of the kindergarten movement throughout the century 1837-1937 was presented at the convention and broadcast to the nation.

Professor Patty Smith Hill was appointed by the Centennial Committee to select the epoch-making events or historical episodes which the Fine Arts students of Teachers College, under Professor Charles J. Martin's supervision, illustrated in poster form to be exhibited at this convention and later sent to conventions in a large number of cities. Professor Hill offered fifty dollars in prizes, drawn from the Patty Smith Hill Fund established by her former students and friends, to those students whom Professor Martin and his committee selected as most successful in illustrating the historical events selected.

Professor Hill has been asked to cooperate in the effort to dramatize these same historical events for broadcast purposes.

The annual award of *The Parents' Magazine* for the outstanding book of the year in the field of parent education will this year be bestowed upon Dr. Bess Cunningham for her volume entitled *Family Behavior*. Dr. Cunningham, now director of the department of Elementary Education, University of Toledo, Toledo, Ohio, was formerly on the faculty of Teachers College as psychologist for the department of Nursery School and Kindergarten–First Grade Education, and later served in the same capacity in the department of Household Economics.

Of the ten medals bestowed by this magazine, four have been awarded to present or past members of the faculty and staff of this department. The first medal offered by the magazine, in 1928, was awarded to Professor Hill; in 1932,

the medal went to Dr. Grace Langdon, in 1936 to Dr. Winifred E. Bain, and in 1937 to Dr. Bess Cunningham.

On February 16 Miss Edith Conard spoke before the teachers of Gloucester County, N. J., on "The Value of Manuscript Writing." She addressed a meeting of the Department of Supervisors and Directors of Instruction in New Orleans on February 22 on "The Progress of Manuscript Writing in the First and Second Grades."

Miss Conard's most recent publication, *Data on Manuscript Writing for Teachers and Parents* (published by A. N. Palmer Company), is a brief survey of the history of writing with a full bibliography.

Nutrition

Professor H. C. Sherman lectured before the Philadelphia Section of the American Chemical Society on March 18, his subject being "Progress and Problems in the Chemistry of Nutrition."

Physical Education

Professor Jesse Feiring Williams discussed the problem of health and exercise in a radio talk over Station WEAF on March 8.

On the afternoon of March 12 Professor Josephine L. Rathbone was chairman of a panel on health education at the Schoolmen's Week held at the University of Pennsylvania. The topic discussed was "What Is the Secondary School's Responsibility in Health Instruction?" On the evening of March 12 Professor Rathbone led an informal discussion of corrective physical education for the majors in health and physical education at the New Jersey College for Women, New Brunswick.

On March 4, 10, and 16 Professor Rathbone conducted a series of talks on "The Woman and Her Problems" to the night classes of the School of Commerce, New York University.

On February 9 Professor F. W. Maroney addressed the Millburn, N. J., High School assembly group on the topic "Trends in Health Education." On February 19 he addressed the directors and teachers of Bradford County at Towanda, Pa., on "Modern Trends in Health Education" and "Meeting the Cardinal Objectives in Education," and on March 6, the Wyoming County Teachers Association meeting at Factoryville, Pa., on "Protect the Power House" and "Basic Principles in Health Education."

Professor Clifford L. Brownell addressed the Principals' Association meeting, Newark, N. J., February 17, on the topic "Health Teaching."

On March 6 Professor Brownell was one of the speakers at the second annual Conference on Health Education at Panzer College of Physical Education and Hygiene, Orange, N. J. His topic was "Health, A Co-operative Municipal Enterprise."

Rural Education

Professor Charles T. Loram and a group of ten students from Yale University visited Teachers College on March 5. They were entertained at supper by the students in Rural Education and afterward listened to an able discussion on Negro rural schools and sharecropper conditions in South Carolina by Professor Charles H. Houston of Howard University. Visits from Yale students have become an annual event and are greatly

appreciated and enjoyed by all those participating.

Former students in Rural Education will regret to learn of the sudden death of Dr. Warren H. Wilson on March 2, following an operation for mastoiditis. Dr. Wilson established the Department of Church and Country Life under the Presbyterian Board of National Missions in New York City in 1908, the first division of its kind in the United States. For this work he was frequently characterized as "the father of the Country Church Movement." The first rural instructor ever employed by Teachers College, he served as associate in Rural Sociology and Economics from 1914 to 1924. During this decade he made many friends at the College among both students and faculty, and exerted wide influence as a keen student, a popular lecturer, and an interesting personality. Memorial services for Dr. Wilson will be held in New York City sometime during the spring.

Miss Margaret Wrong of London visited Teachers College on March 4, and spoke on "Present-Day Needs and Conditions in Africa" at a tea arranged by the Rural Club. The discussion at this meeting produced heated argument concerning the intellectual ability of native Africans, with Miss Wrong coming staunchly to their rescue. Miss Wrong is Secretary of the International Committee on Christian Literature for Africa, and was the traveling companion of Professor Carney on the latter's trip around Africa in 1926. She is now doing notable work in the development of textbooks and other materials for African schools, and in connection with this work makes annual visits to the United States.

Miss Helen H. Heyl of Albany, N. Y., outlined the program and objectives of the New York State Division of Rural Education before the Rural Club on February 25. Among other points stressed were the admirable provisions of New York State in requiring all teachers college students to elect minimum units of rural instruction during their period of training, and in conducting practical experimentation on the modernized organization and curriculum of consolidated schools.

Professor Fannie W. Dunn, who is on sabbatical leave during the Spring Session, spent the month of February in Florida. Later in the spring she will go to her farm in Connecticut and give most of her time to flower gardening. Professor Dunn will return to Teachers College for the regular Summer Session.

Professor Frank W. Cyr attended the convention of the Department of Superintendence at New Orleans in February. He addressed the session held especially for county superintendents on the topic "Newer Administrative and Instructional Plans for Small High Schools." He also met with the Committee on the Economic Status of the Rural Teacher, appointed by the National Education Association, which is launching a national study of this problem. Professor Cyr was appointed chairman of a committee of the Rural Department of the National Education Association, to formulate a national policy for rural education.

The Bureau of Publications of Teachers College has published reprints of "Needed Research on the Reorganization of School Districts in Rural Areas," an article by Professor Cyr which appeared in the January issue of THE RECORD. These reprints can be ordered by mail at twenty-five cents a copy.

Professor Carney lectured before the Race Relations Seminar at Yale Univer-

sity on March 16 and addressed a rural school conference at the State Teachers College in Oswego, N. Y., on March 19.

Rural Sociology

Professor Edmund deS. Brunner delivered a lecture on "Rural Social Trends" at Louisiana State University on February 17. He appeared before the Rural Section of the Department of Superintendence at New Orleans on February 22.

On February 2 and 9 Professor Brunner lectured at Cooper Union, New York City, on "The City's Stake in Rural Prosperity" and "Is Economic Co-operation a Way Out?"

Secondary Education

Professor Thomas H. Briggs addressed the Southwestern Section of the Illinois State Teachers Association at East St. Louis on April 2, the North Central Association of Colleges and Secondary Schools on April 9, and the junior high school teachers of Washington, D. C., on April 16.

The list of questions for a supervisor to ask when observing a class, which Professor Briggs presented to the National Association of High School Supervisors at New Orleans, has been mimeographed and distributed by the Maryland State Department of Education to all superintendents and principals in Maryland.

At a meeting of the Parent-Teacher Association of the White Plains, N. Y., High School held on March 8, Professor Elbert K. Fretwell discussed the topic "The Function of Extracurricular Activities" as a part of a general symposium on the question "What Should Be the Function of Present-Day High School Education?" Dr. F. Dean McClusky of Scarborough School was panel leader.

Mr. Francis A. Young led a group discussion on "Problems of the School Paper in Small Independent Schools" at the annual convention of the Columbia Scholastic Press Association held March 11 to 13 at Columbia University.

"The Functions of Secondary Education," the report of the Committee on Orientation of the Department of Secondary School Principals, was the subject discussed at the final dinner meeting of the season of the Secondary Group, held at the Men's Faculty Club on March 8. Brief comments on the report were made by Dr. William A. Clarke, principal of the John Adams High School, New York City, Professor Ford B. Barnard of Brooklyn College, Mr. Frank S. Hackett of the Riverdale Country School, Riverdale, N. Y., and Mr. Floyd E. Harshman, principal of the Nutley High School, Nutley, N. J. Professor Briggs presided over the general discussion.

Professor and Mrs. Briggs, Professor and Mrs. Fretwell, and Professor Maxie N. Woodring were the guests of honor and Professor Goodwin B. Watson was the guest speaker at the annual dinner meeting of the Secondary Education Club held on March 9 in the balcony dining room of John Jay Hall. Professor Watson's talk anticipated a new period in secondary education when the school will deal with the most important things in the lives of young people and will play a significant part in improving society. Mr. Adriaan Smuts was toastmaster.

Professor Oliver R. Floyd of the University of Minnesota will teach the courses in Principles of Secondary Education and High School Administration given at Teachers College during the Summer Session.

Assistants in Secondary Education during the coming Summer Session will be the same as in 1936. Mr. George H. Armacost, principal of Shore High School, Euclid, Ohio; Mr. E. H. Hanson, principal of the high school, Rock Island, Ill.; and Mr. H. G. Spaulding, principal of the high school, North Plainfield, N. J., will assist Professor Briggs; Mr. James H. Moyer of Teachers College will assist Professor Woodring; Mr. Harold Spears, curriculum director at Evansville, Ind., will assist Professor Fretwell; and Mr. Lloyd Ashby, principal of the Dennis Junior High School, Richmond, Ind., will assist Professor Floyd.

Speech Education

Mrs. Jane Dorsey Zimmerman will teach a course in Phonetics for American students in the Summer School in Speech at the Speech Institute, London, England. The school is under the direction of Miss Marjorie Gullan, who lectured on the subject of "Choral Speaking" at Teachers College last year. Miss Gullan has just completed a six months' lecture tour of Canada and the United States.

Mrs. Zimmerman will direct a Speech Education Field Course in England for Teachers College students during the coming Summer Session. The course will include attendance at courses in Speech in London, school and clinic visitations, attendance at the dramatic festivals at Malvern and Stratford-on-Avon and the verse speaking festival at Oxford, and excursions to places of interest.

Bureau of Educational Service*

The following appointments of Teachers College Alumni are reported by the Bureau of Educational Service:

Allen, Elizabeth V. (A.M. 1935), appointed dietitian, Pennsylvania Hospital, Philadelphia, Pa.

Bailey, Lucretia M., appointed dietitian, Perkiomen School, Pennsburg, Pa.

Ballard, Mary Ellen, appointed cafeteria manager, Farm Credit Administration, Springfield, Mass.

Battles, Lucretia F. (M.S. 1933), appointed institutional demonstrator, Meloripe Fruit Company of United Fruit Company, Boston, Mass.

Bixler, Lena M., appointed instructor in kindergarten and primary education, Ball State Teachers College, Muncie, Ind.

Borkey, Florence R., appointed instructor in music, Asheville Normal and Teachers College, Asheville, N. C.

Daniel, Berthe, appointed resident director, N.Y.A. Camp for Unemployed Women, Mt. Pocono, Pa.

Daughtry, Annie Moore, appointed executive of city-county public welfare department, Macon, Ga.

Denniston, Mildred (A.M. 1933), appointed assistant professor of physical education, Baldwin-Wallace College, Berea, Ohio.

Folwell, Ethel, appointed teacher of Latin, Birch Wathen School, New York City.

Grant, Ada Miriam (A.M. 1936), appointed visiting teacher and attendance officer, Public Schools, Grand Island, Neb.

Harap, Henry (Ph.D. 1924), appointed professor of education, Division of Field Studies and Surveys, George Peabody College for Teachers, Nashville, Tenn.

Harrin, Carol Jean, appointed first grade teacher, Public Schools, Closter, N. J.

Hentzell, Frances L., appointed dietitian, Bruce Memorial Hospital, New York City.

Hopson, Dorothy, appointed sixth grade teacher, Birch Wathen School, New York City.

Hotton, Fern (A.M. 1928), appointed assistant professor of home economics, University of Maine, Orono, Me.

Hurst, Alfred (A.M. 1928), appointed teacher of Latin and ancient history, Detroit Country Day School, Detroit, Mich.

* Any student who is taking or has taken twelve points of work at Teachers College or any graduate of Teachers College may register with the Bureau of Educational Service. No fee is charged. For full information write to the Bureau for copies of its booklet, *Employment of Teachers and Administrators.*

McBride, Roberta C., appointed teacher of French, Shore Country Day School, Beverly, Mass.

Partridge, E. DeAlton (Ph.D. 1934), appointed assistant professor of psychology, New Jersey State Teachers College, Montclair, N. J.

Pinard, Cecile-Marie, appointed high school teacher, Mary E. Wells High School, Southbridge, Mass.

Reed, Katherine F. (A.M. 1936), appointed elementary grade teacher, Children's Village, Dobbs Ferry, N. Y.

Schmalhausen, Myrtle Ruth (A.M. 1932), appointed assistant professor of foods, Eastern Illinois State Teachers College, Charleston, Ill.

Schwartz, Alice (B.S. 1936), appointed nursery school assistant, Dalton School, New York City.

Shaw, Robert W. (Ph.D. 1931), appointed director, Pueblo Junior Consultation Service, National Youth Administration, Pueblo, Colo.

Spurr, William A., appointed assistant professor of statistics, University of Nebraska, Lincoln, Neb.

Tiquin, Jane Margaret, appointed teacher of English, George Washington Junior High School, Endicott, N. Y.

Townend, Janet, appointed teacher of industrial arts, Public Schools, Grand Rapids, Mich.

Westover, Esther G., Mrs. (A.M. 1928), appointed third grade teacher, Lawrence School, Hewlett, L. I.

Worchel, Philip (A.M., 1936), appointed clinical psychologist, Florida State Hospital, Chattahoochee, Fla.

Young, Irene B. (A.M. 1933), appointed director, Speech and Hearing Nursery School, New York City.

Zeman, Dorothy (A.M. 1932), appointed nutritionist, The American Red Cross, Evansville, Ind.

The following appointments of Teachers College Alumni will be effective in September 1937:

Gerichs, Louise, appointed special class teacher, Long Lane Farm, Middletown, Conn.

Herrington, Dorah M. (A.M., 1930), appointed principal, District No. 6, Town of Clarkstown, Rockland Co., N. Y.

Inghram, Florence, Mrs., appointed head of residence, Pomona College, Claremont, Calif.

Threlkeld, A. L. (A.M., 1923), elected superintendent of schools, Montclair, N. J.

Tyson, Levering, elected president, Muhlenberg College, Allentown, Pa.

Williams, Harry H., appointed teacher of science, Horace Mann School for Boys, Teachers College, Columbia University, New York City.

ALUMNI NOTES

TEACHERS COLLEGE ALUMNI ASSOCIATION

Officers

President: Dr. F. H. BAIR, Superintendent of Schools, Bronxville, N. Y.
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Mr. E. E. OBERHOLTZER, Superintendent of Schools, Houston, Tex.
Alumni Trustees:
Dr. F. H. BAIR, Superintendent of Schools, Bronxville, N. Y.
Dr. MARGARET V. KIELY, Principal, City Normal School, Bridgeport, Conn.
Alumni Office: Teachers College, 525 West 120th Street, New York City.

Address all communications to CLYDE R. MILLER,
Secretary-Treasurer of Alumni Association, Teachers College, New York City.

Miss Florence Stein (A.M. 1936), who has been chief consultant nurse for the Arizona State Board of Health since December 1, is at work on the first *Public Health Nurse Bulletin* for Arizona nurses.

Miss Amy Norton Taylor is teaching a Special A Group at the Keating School, Detroit, Mich.

Mrs. Elizabeth Thompson Newell (B.S. 1910) has been principal of an elementary school in Medford, Mass., since 1914. In the meantime she has been abroad four times for study and travel.

Miss Marie E. Tosti (A.M. 1935), instructor in commercial education, Nazareth College, Nazareth, Mich., reports that her work this year has been an adventure. Her plan has been to standardize the major courses in business to fit the personal needs of young women in the community. She writes, "Everything we do has a meaning; if we find that it has not we change it. . . . To unite the work at Nazareth with that of the business environment, we have arranged to attend a series of demonstration lectures at Maher's Business College, Kalamazoo, Mich., a modern school equipped with modern office machinery."

Mr. Erdman Harris (A.M. 1924) has a dual position. Although his chief responsibility is as chairman of the department of religion at Lawrenceville School, Lawrenceville, N. J., he is also continuing a part-time position as associate professor of religious education at Union Theological Seminary, Columbia University, New York City.

Miss Ruth Evelyn Henderson (A.M. 1923) is at present educational adviser, American Red Cross, Washington, D. C. Miss Henderson's second volume of poems, entitled *8:20 A.M.*, was published recently by Bruce Humphries, Inc.

Miss Jonnie McCrery (A.M. 1923), a member of the faculty of Texas Technological College, Lubbock, Tex., attended the meetings of the Association of Southern Agriculture Workers, Nashville, Tenn., February 3 to 5 and read a paper on "The Basal Metabolism of College Women at Texas Technological College." This paper was the outgrowth of a piece of research done by Miss McCrery and a graduate student in the department of foods and nutrition.

Dr. Robert H. Morrison (Ph.D. 1934), principal of the New Jersey State Normal School at Paterson, was recently appointed State Director of Teacher-Education and Junior Colleges by the New Jersey State Board of Education, the appointment to be effective July 1. Dr. Morrison will serve as administrative assistant to the State Commissioner of Education in planning teacher-education curricula, in preparing budgets, in authorizing private colleges to offer professional courses for teachers, and in working with the executive officers in the private colleges in maintaining standards established by the State Board of Education. He will succeed Mr. Edgar F. Bunce (A.M. 1926), who has accepted the principalship of the State Normal School at Glassboro, N. J. Mr. Clair S. Wightman (A.M. 1924) will succeed Dr. Morrison at the State Normal School in Paterson.

Recent Publications

WEALTH, CHILDREN, AND EDUCATION. By JOHN K. NORTON and MARGARET ALLTUCKER NORTON. 120 pp. Cloth, $2.00. School Administration Series.

A PLAN FOR FEDERAL SUPPORT FOR PUBLIC EDUCATION. By PAUL R. MORT. 74 pp. Paper, 75 cents.

NEEDED RESEARCH ON THE REORGANIZATION OF SCHOOL DISTRICTS IN RURAL AREAS. By FRANK W. CYR. 23 pp. Paper, 25 cents.

NUMBERS AND NUMERALS. By DAVID EUGENE SMITH and JEKUTHIEL GINSBURG. 64 pp. Paper, 25 cents.

AN EVALUATION OF A PLAN FOR CHARACTER EDUCATION: INVOLVING THE USE OF A PLEDGE, AN AWARD, AND A SPONSOR. By W. BRADFORD BAYLISS, Ph.D. 141 pp. Cloth, $1.60. Contributions to Education, No. 695.

FACTORS RELATED TO THE CHANGES IN SCHOOL ADJUSTMENT OF HIGH SCHOOL PUPILS: WITH SPECIAL REFERENCE TO SELECTED FACTORS IN THE HOME ENVIRONMENT. By LESTER A. KIRKENDALL, Ph.D. 89 pp. Cloth, $1.60. Contributions to Education, No. 705.

THE BASIS FOR CONSTRUCTING CURRICULAR MATERIALS IN ADULT EDUCATION FOR CAROLINA COTTON MILL WORKERS. By RALPH M. LYON, Ph.D. 129 pp. Cloth, $1.60. Contributions to Education, No. 678.

THE REFLECTION OF TEACHERS' ATTITUDES IN THE ATTITUDES OF THEIR PUPILS. By ARTHUR J. MANSKE, Ph.D. 67 pp. Cloth, $1.60. Contributions to Education, No. 702.

STUDENT AID: BASES OF SELECTION OF STUDENTS TO WHOM LOANS, SCHOLARSHIPS, AND FELLOWSHIPS ARE AWARDED IN A GRADUATE SCHOOL OF EDUCATION. By MARGARET RUTH SMITH, Ph.D. 152 pp. Cloth, $1.60. Contributions to Education, No. 704.

PUBLIC SCHOOL TAX MANAGEMENT IN TEXAS. By EUGENE G. WILKINS, Ph.D. 105 pp. Cloth, $1.60. Contributions to Education, No. 703.

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